

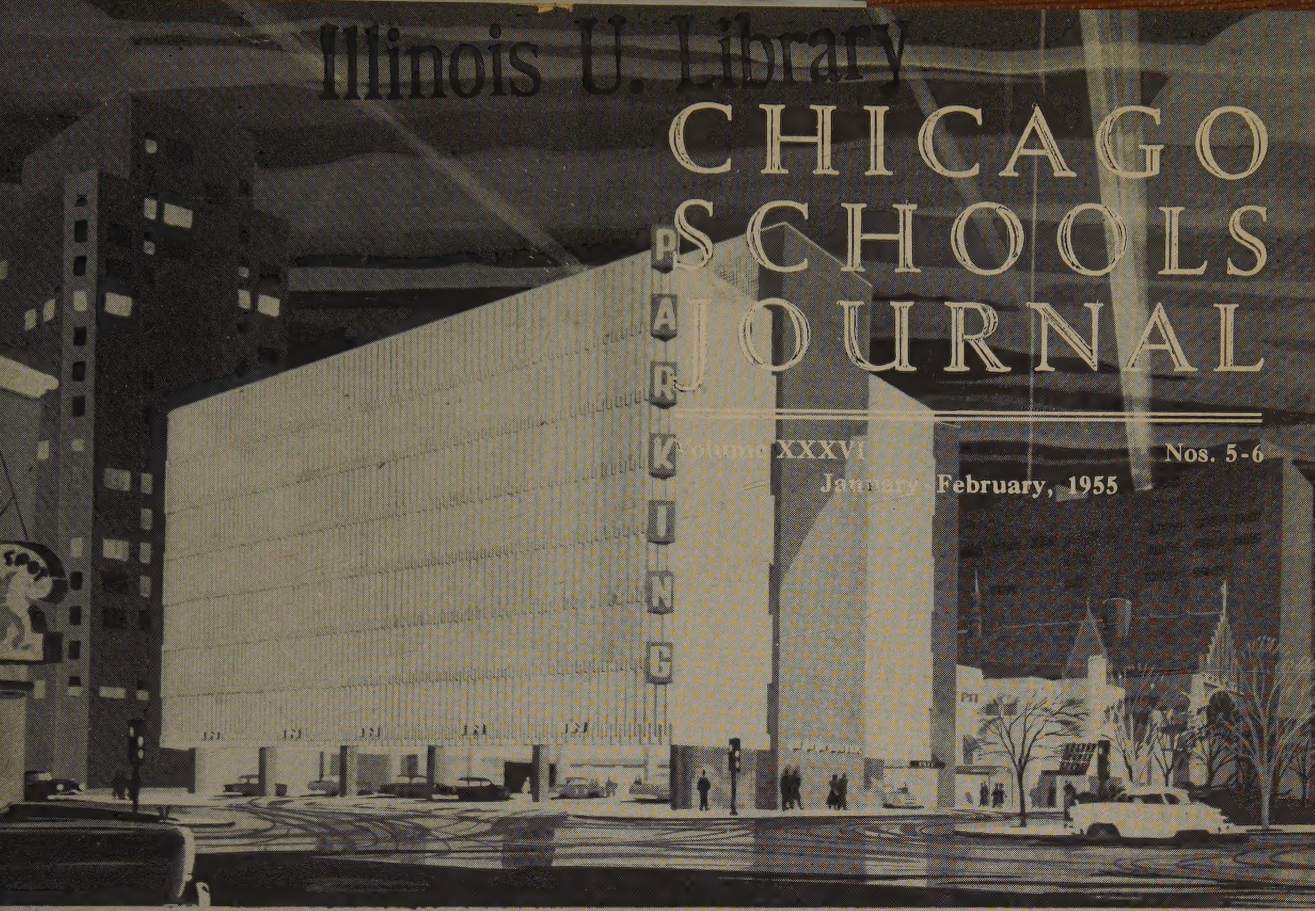
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# CHICAGO SCHOOLS JOURNAL

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COVER DESIGN — Some Multi-Level Parking Structures in  
the Central Business Section of Chicago

*Courtesy of the Department of Public Works*

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# SUPERVISORS STUDY THEIR SERVICES

EDWIN A. LEDERER, LOUIS V. NEWKIRK, BLANCHE  
B. PAULSON, AND PAUL R. PIERCE

CHICAGO PUBLIC SCHOOLS<sup>1</sup>

**J**UST as classroom teachers constantly seek means to improve their services to their pupils, so supervisors constantly search for ways to improve their services to teachers. In turn this ultimately means improvement of the supervisor's service to the pupils of the school system. It is axiomatic that the classroom teacher is the focal person in the instructional personnel of the school. All other school personnel from architect to principal and from school engineer to supervisor have validity only in terms of the activities in the classroom.

In an effort to improve supervision, the supervisors in the bureaus and divisions of the Department of Instruction and Guidance have for several years conducted annual institutes in which new methods, established principles, and basic premises have been explored and tested. As an outgrowth of the institute held in December, 1952, the department organized a research study of supervisory services.

This study was divided into two parts. One, which came to be known as the "daily log," analyzed the distribution of a supervisor's time among a number of service areas. The other was in the nature of an appraisal of opinion based on interviews with principals and teachers to determine their reaction to the supervision they were receiving from the department. Both studies recognized the basic premise that supervision by principals constitutes the over-all leadership in instruction, and that various bureaus and divisions of the Department of Instruction and Guidance provide supplementary assistance to teachers in a wide variety of special fields.

Central planning for both studies was carried on by two committees of directors of the bureaus and divisions, operating

independently of each other. Over-lapping and similar conflicts were avoided by careful delineation of the scope of each study and by the use of the same supervisory personnel in both studies.

## ORGANIZING DAILY LOG

After outlining the general scope of the log project, the first step was the preparation of a report sheet for the use of the participating supervisors. Time spent and the place of the service as well as the nature of the service were included. In addition, as an optional report, there was space for the supervisor to indicate his evaluation of his day's activities or a description of services planned for the day but not accomplished. The log was to be a running account of the day without there being any attempt at cataloging the types of service as the log was kept.

Schedules for the log were then adopted, six weeks in all being included. One week each in the months from November through April was chosen as representative of the beginning, middle, and close of the semester.

Selection of personnel to be included in the study was left to each bureau or division director. Sixty supervisors (including psychologists who work in the schools providing technical assistance to principals and adjustment teachers) from eleven bureaus and divisions participated, preparing a total of 1,704 logs.

The log record came to constitute a kind of job analysis as each separate activity was set down by each supervisor. All logs were turned in to the committee in charge,

<sup>1</sup>Dr. Lederer, formerly Director of Instruction Materials, is Director of Purchases; Dr. Newkirk is Director of Industrial Arts; Mrs. Paulson is Supervisor of Counseling Services; and Dr. Pierce is Assistant Superintendent in charge of Instruction and Guidance.



# SAMPLE DAILY REPORT OF SUPERVISORY SERVICE

Name                      Doe, Jane                      Division of                      Art                      Date                      November 17, 1952

Time	Location of Service*	Nature of Service
A. M.		
8:30- 8:40	Amundsen High School	Returned pictures exhibited in central office.
8:45- 9:00	Amundsen High School	Demonstrated the working of a loom.
9:00- 9:10	Amundsen High School	Helped principal select drapery fabric for office.
9:30-10:00	Murphy Elementary School (Art Center)	Turned on ceramic kiln to fire clay work for 2 schools. Opened supplies for district art center.
10:45-11:30	LeMoyne School	Helped student-teacher committee hang framed pictures in halls.
P. M.		
1:00- 2:45	LeMoyne School	Meeting with intermediate grade teachers to discuss Open House art activities. Meeting with primary teacher to discuss papier mâché techniques.
2:45- 3:00	LeMoyne School	Taught design lesson in Grade 4.
3:10-	Murphy Elementary School (Art Center)	Turned off kiln and prepared materials for workshop.
- 4:30	Murphy Elementary School (Art Center)	Workshop meeting for teachers (weaving and enameling techniques).
8:00- 9:30	Hild Library	Talk on Creative Art Program.

Optional: Appraisal of day's activities by supervisor — evaluate activities, describe services planned but omitted because of time limitations, etc.

Planned to demonstrate making of mobiles to advanced art class at Amundsen — failed to do so because all required materials were not available.

\*Separate activities and services in different locations by horizontal lines.

at the end of the sixth week of the record, and classification was then made of the descriptions of service although, as might have been expected, great diversification of activity was found to be one characteristic of the logs. Five categories with sub-categories seemed, however, to offer classification for most of the activities named: Teaching, Training, and Guidance; Curriculum and Materials of Instruction; Administrative Functions; School and Community Relations; and Research and Evaluation of Learning Program.

Code numbers were assigned to all sub-categories and the logs were then returned to the participating supervisors with an instruction sheet for coding and for computation of the time spent on each category and sub-category.

## LOG SUMMARY

In the final computations by categories, the percentage of time spent on each sub-category was figured for each bureau and division; the totals for all were then determined.



Supervisory Functions and Activities —	Percentage of Time Used
Teaching, Training, and Guidance	30.3
Curriculum and Materials of Instruction	23.2
Administrative Functions	20.8
School and Community Relations	13.9
Research and Evaluation of Learning Program	10.9

The following is a typical distribution of time of one division's supervisory functions and activities from which the above totals were determined.

Supervisory Functions and Activities —	Percentage of Time Used
A. 1.0 Curriculum and Materials of Instruction	
1.1 Developing courses of study	1.2
1.2 Aiding in selection of materials	2.7
1.3 Assisting in use of equipment	3.0
1.4 Participating in curriculum meetings	2.0
1.5 Evaluating and furnishing supplies	3.5
1.6 Improving use of instruction materials, library, etcetera	0.2
1.7 Planning units of work	2.6
1.8 Using community resources	1.1
1.9 Staff meeting, developing and organizing information on field work	.6
	16.9
B. 2.0 Teaching, Training, and Guidance	
2.1 Helping new teachers	2.6
2.2 Arranging intervisitation	0.1
2.3 Providing demonstration teaching	0.4
2.4 Observing classroom activities	5.2
2.5 Holding teacher conferences	7.6
2.6 Providing leadership in inservice workshops, study groups, institutes	17.8
2.7 Diagnosing problems of children	1.0
2.8 Interpreting problems to teachers	0.3
2.9 Recommending special provisions for solving problems	1.3
2.10 Providing material for teacher guidance	.35
	36.65
C. 3.0 School and Community Relations	
3.1 Arranging for publicity	1.0
3.2 Working with community groups	...
3.3 Presenting awards	0.2
3.4 Working with professional organizations and meetings	8.7
3.5 Participating in university workshops and conferences	0.3
3.6 Providing professional consultant service for community groups	...
	10.2
D. 4.0 Research and Evaluation of Learning Program	
4.1 Analyzing instructional techniques by experimental method	3.0
4.2 Participating in evaluation studies	0.3
4.3 Assisting in exhibits	0.3
4.4 Using instruments of measurement	0.09
4.5 Preparing materials for publication	2.5
	6.19



E. 5.0	Administrative Functions	12.9
5.1	Providing adequate physical facilities	.06
5.2	Guiding the proportion of teacher's programs	2.2
5.3	Recruiting teachers	14.9
5.4	Preparing reports, reading bulletins, correspondence	...
5.5	Developing improved divisional techniques and procedures	30.06
		<hr/> 100.00

Within each of the five categories, the specific activities and functions which received the greatest attention were as follows:

	Percentage of Time Used
A. Curriculum and Materials of Instruction	
1.2 Aiding in the selection of materials	5.09
1.3 Assisting in use of equipment	3.91
1.6 Improving use of instruction materials, library facilities, etcetera	3.93
B. Teaching, Training, and Guidance	
2.5 Holding teacher conferences	7.96
2.6 Providing leadership in inservice workshops, study groups, institutes	5.36
2.7 Diagnosing problems of children	4.14
C. School and Community Relations	
3.2 Working with community groups	3.45
3.4 Working with professional organizations and meetings	8.05
D. Research and Evaluation of Learning	
4.3 Assisting in exhibits	3.43
4.5 Preparing materials for publication	3.67
E. Administrative Functions	
5.1 Providing adequate physical facilities	5.31
5.4 Preparing reports, reading bulletins, correspondence	13.87

The "work week" for the sixty participating supervisors was also calculated with an interesting result. Supervisors in all divisions, regardless of the amount of time individual supervisors were assigned to the Central Office, which has a longer day than the schools, were working a longer day than the official school day. Supervisors in one division were working an hour and forty-five minutes longer; in another, an hour and twenty minutes longer. Eight of the eleven divisions participating were working a longer day than that required in Central Office regulations. While this particular finding is of limited value, it does indicate that the activity of supervisors is not confined either to school hours or office hours, but is of a continuing character. This is doubly significant inasmuch as most of the supervisors in the

study spend more of their time in the field than in the central office.

#### INTERPRETING THE LOG

Comparison of percentages of time devoted to various supervisory functions, either between categories or between bureaus and divisions, must be approached with caution. For example, the sub-category "planning units of work" under Curriculum and Materials of Instruction might, in the case of some bureau, be practically synonymous with "providing material for teacher guidance" under Teaching, Training, and Guidance. Comparison of time spent by each bureau in the different areas of supervision would also need to be evaluated against its functions as set forth in the Statement of Functions of the Major Administrative



Organization Units<sup>2</sup> rather than against the percentage of time spent by other bureaus. This is particularly true of bureaus where specialized functions were of necessity grouped according to categories more usually associated with classroom supervision of special subjects. Thus the statistics give a total picture of the activities of the Department even though in making comparisons among divisions, one must proceed with caution.

Nevertheless, the figures do serve to emphasize the variety of activities carried on under the name of supervision and the closeness of the work of the supervisor to the practical problems of the teacher as well as a preoccupation with the teaching-learning process.

It is obvious from the study that supervisors are a hard-working group of people who put in hours appreciably in excess of those required by official schedules.

#### IMPLICATIONS OF THE LOG

The greatest benefits to be derived from the research would seem to be those which each bureau and division gained from the analysis of time spent. A comparison of time spent with the functions developed for the bureau and with the results of the interview research would prove valuable. These three—actual activities, the assigned responsibilities, and the effectiveness of the activities in the judgment of teachers and principals—afford each division and bureau a self-evaluation device of great value.

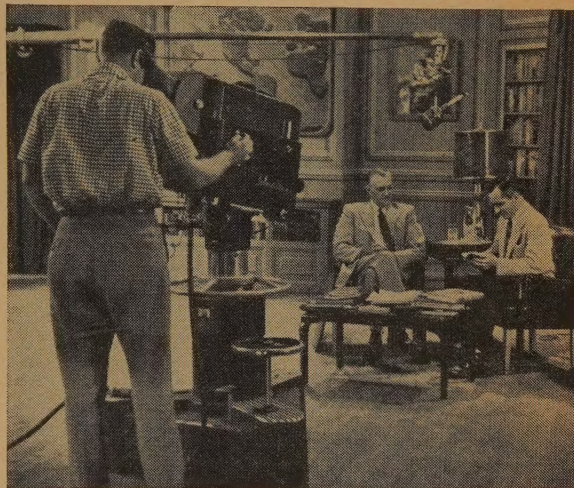
As one might expect, the greatest proportion of time was devoted to Teaching, Training, and Guidance. A significant proportion was also being devoted to Curriculum and Materials of Instruction.

A further implication is to be found in the percentage of time spent by supervisors on school and community relations. The integration of school and community is here apparent with its implications of mutual needs and support. Related to this matter of group work are many sub-categories in other categories which emphasize

the group activities of supervisors, such as participation in curriculum meetings and providing leadership in workshops. If it ever were, supervision no longer is just a matter of visitation with individual teachers.

#### ORGANIZING INTERVIEW-APPRAISALS

Procedures for the companion research project while following the same general plan as to organization were, however, from the different nature of the study, distinctive. Again the committee of directors settled on the categories of the study, se-



Modern Methods of Communication Utilized

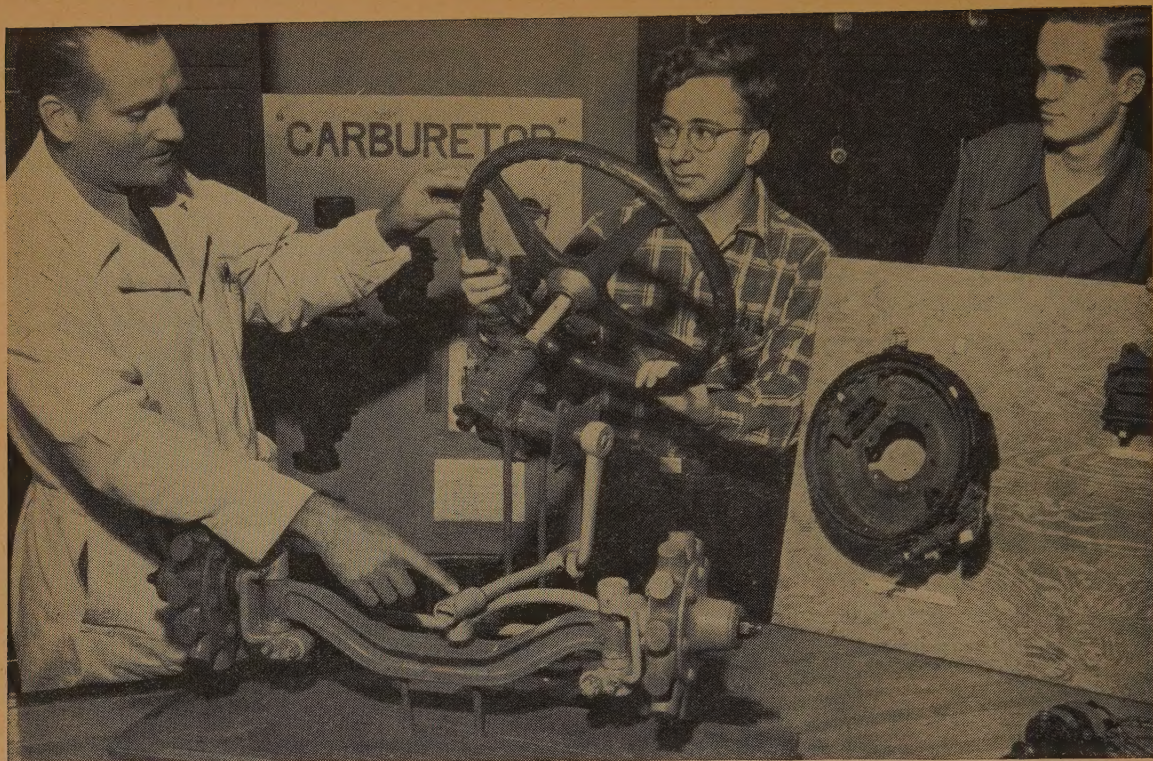
lection of schools, participants, and a time schedule.

A questionnaire was devised which listed ten functions of supervision with a rating device and space for comments by those interviewed. The functions included were as follows:

1. Giving guidance and help on curriculum problems
2. Giving inservice training to teachers
3. Giving help on the selection of suitable instructional materials
4. Working to improve teacher methods
5. Working on planning new rooms or rehabilitating present rooms and equipment

<sup>2</sup>Originally adopted April, 1948 by Board Report 48796; revised in January, 1949, December, 1949, February, 1950 and September, 1952.





Supervisor Offers Helpful Suggestions

6. Working on the problem of correlating school and home activities
7. Working to improve the program of public relations
8. Giving demonstration lessons before the class
9. Introducing and demonstrating how to use new equipment, materials, and instructional devices
10. Assisting in planning of exhibits for parents, general public, and professional educational meetings

Each individual interviewed was asked to rate supervision as experienced by him for each of the above functions on a four-point scale. A rating of 1 was the highest; 4, the lowest. In addition, each person interviewed was encouraged though not required to comment, indicating strengths, weaknesses, or suggestions for improvement.

It was decided to divide this project into two parts, with directors interviewing principals and supervisors interviewing teachers. Thus principals were asked to

react to supervision of special fields as a whole, without reference to any special bureau or division. On the other hand, teachers indicated on their questionnaires their reactions to the supervision afforded by the bureau or division represented by the particular supervisor circulating the questionnaire.

Schools were selected by the central committee for interviews of principals. Fifteen high schools were selected, three from each district, on the basis of enrollment, small, medium, large. One vocational school was selected. Five elementary schools were chosen from each of the nine districts on the basis of alphabetical order. Thus sixty-one principals answered the questionnaire. This representation approximated 15 per cent of the high schools, 14 per cent of the vocational high schools, and 13 per cent of the elementary schools. No attempt was made to take into account comparative amounts of supervision. For example, elementary



schools not offering home mechanics would have fewer special supervisors than a school offering such a program, and some high schools, with technical as well as industrial arts programs, would have more supervision than elementary schools.

Personnel to participate in the teacher-supervisor interviews were selected by each Bureau or Division Director, with approximately 10 per cent of the teachers regularly receiving supervision being se-

lected. These were chosen without relation to the schools selected for the principals' interviews. Directors also selected their own supervisors for the inquiry.

### SUMMARIZING THE INTERVIEWS

Findings based on interviews offer two kinds of conclusions. The first is to be found in the mathematical computation of the ratings of supervisory service, both by principals and by teachers.

	Number of Interviews by Groups	Ratings in 1	Interviews in 2	by 3	Teachers / Principals 4	0
Directors-Principals	46	158	141	83	70	8
Supervisors-Teachers	408	2480	544	231	280	541
	454	2638	685	314	350	549

The above table reveals that 58 per cent of the principals and teachers interviewed rated supervisory services as 1; 15 per cent as 2; 7 per cent as 3; and 8 per cent as 4.

Twelve per cent of the total number of items were not rated. This indicates reactions of no opinion rather than of adverse opinion.



Efficient Supervision Produces Results



An evaluation of the 2,439 comments and the 321 additional statements offers a second source of conclusions, in harmony with the acceptance revealed in the first. The following are representative teacher comments taken at random:

I believe the supervisor's service can be improved by (1) allowing the supervisor more time with each teacher, (2) fewer changes in supervisors.

The crux of the matter is time.

Enlightened the PTA on the many services the public school has to offer.

Always ready with help and suggestions on materials.

Supervision services to date are very full; research in curriculum problems could be extended.

Need varies in different schools. Specific assistance should be adapted to local needs.

I have never had any help in the selection of instructional materials.

Supervision hampered by basic problems, i.e., finances and space.

The school should plan its own exhibits, etcetera, with aid of the supervisor. His position secondary.

Typical comments of principals were as follows:

Concerning curriculum problems (20 comments) —

Relative infrequency of visitations vitiates excellent potentialities in this area.

Our only contact has been in bulletins.

Certainly we could not operate a well planned program without this help.

Inservice training (18 comments) —

The supervisors give excellent inservice training to teachers in spite of a busy schedule but more frequent visits would help a great deal. Many supervisors have too many schools and too many exhibits to put up so there isn't time for enough supervision of work in elementary schools.

Inservice classes are given in certain cases but teachers, as a whole, are not willing to go to the classes after school.

Selection of instructional materials (18 comments) —

This function is accomplished indirectly by bulletin rather than by direct contact with supervisors.

Good. Every department has been willing and ready to give excellent help here.

Improving teaching methods (16 comments) —

Qualitatively fine! If I were thinking quantitatively here I would mark lower.

Most of the supervisors are helpful in improving teaching methods in their fields.

General remarks (48 comments) —

I think that the "personality quotient" perhaps should be rated, too. My teachers are happy to have some supervisors arrive but dread others; yet I think all supervisors are probably equally willing and qualified to help.

This school's needs for the invaluable services of the Department of Instruction and Guidance vary from year to year. The use of thirteen sheets (i.e., one for each division) would seem to be much more justifiable.

#### INTERPRETATION OF THE INTERVIEWS

It is apparent from the statistics and from the comments that principals and teachers alike want more not less supervisory assistance with their teaching problems. They are aware of the fact that the limits of time prevent their receiving some of the help they would like. Personality factors were not ignored, but the general tenor of opinions was favorable toward the supervisors as a group and toward supervision as a service. It would appear that administrative exigencies rather than the will to help or the desire to receive help cause the frustrations that exist and the shortcomings that appear.

It seems that the desire for a larger staff of supervisors with more time for individual help is implicit in the findings. Also implicit is the fact, known from other contacts, that teachers prefer the help to be given in their own schools during school hours. It is also implied that it will be impossible to suit everyone; for each person desiring "more bulletins" there are an equal number desiring fewer. For each who wants to request the supervisor's visit there is one who prefers routine, unannounced visits.



## CONCLUSION

In the case of both the "log" and the "interview," the chief value of the study for future guidance in charting the course of supervision lies in the interpretation each bureau or division can make of findings concerning its own service. The analyses of how the time is being spent, together with the findings on the effectiveness of the service in the eyes of principals and teachers, should help supervisors to plan their future programs with increased assurance. The study should also assist administrative and teaching personnel to understand the demands placed on services of the supervisors by the central office in the interests of the urban community

and regional areas of the city system, which take time from but nevertheless contribute to the assistance supervisors give to individual schools. The techniques employed should contribute materially to the inservice growth of department personnel in functional research, an area especially related to the work of the supervisors. Finally, on the basis of the friendly and effective contacts enjoyed by directors, principals, supervisors, and classroom teachers working together, the study appears to indicate the potential values of additional projects of operational research to improve working relationships between all spheres of administrative, supervisory, and teaching personnel.

# THE CHILD'S READING AND THINKING

DAVID H. RUSSELL<sup>1</sup>

UNIVERSITY OF CALIFORNIA<sup>2</sup>

A CHILD in school is something like a plasterer or a housewife. He wants to get his work finished just as the adult wants to complete a wall or put dinner on the table. The pupil wants to get the picture drawn, the report written, or the story read. The product, not the process, is the important thing to him. So too with busy teachers. Let's get the map finished, the answers written, the reading tests scored, the books closed.

But ever so often a bit of magic, if encouraged, may descend upon the busy classroom. For a few minutes the trucks on the noisy road outside are still. For a brief period other groups of pupils are busy and reasonably quiet. Just then, for a moment or two, the teacher and a group of children may stop to think over what they have been reading. In the pause that comes when a story has been savored, the teacher says, "What kind of a boy do you think Bill was?" "What would you have done if you had been in that town?" "Was this the right or best thing to do?" Teacher

and pupils both pause to consider ideas implied but not stated. They do some fresh thinking. They obey the poet's injunction:

A poor life this if, full of care,  
We have no time to stand and stare.

All teachers have felt this bit of magic at some time or other. They and their pupils have had the experience of thinking seriously and creatively about what they have been discussing and reading. But magic just doesn't happen in a busy and crowded classroom. It has to be fostered. Children can think clearly and imaginatively only when conditions are good. One of these conditions is that the teacher have some understanding of children's thinking processes.

Encouraging and cherishing children's thinking is not a new goal. Sometimes we say that one aim of the school is to help children think clearly or sometimes we

<sup>1</sup>Author of many books on reading and the teaching of reading.

<sup>2</sup>Berkeley



write that the curriculum should help teach children "not what to think but how to think"—as if the what and the how could be separated. We have often talked about this aim, but like Mark Twain's weather, we haven't done much about it. Perhaps the first step in repairing this neglect is to develop a psychology of thinking—a topic relatively ignored in the pre-service, professional training of most teachers. In such preparation we haven't always asked the important questions. And one of these is, "How do children acquire and use abilities in clear thinking?"

Although one's preparation for teaching gave few leads, any teacher in service can study children's thinking. One attack on the problem is for teachers to record and then analyze samples of their children's thinking. Encourage a pupil to "think out loud." Analyze the kind of answers obtained when a tough question is proposed, with the solution not stated in the reader or text. Here are a couple of examples of youthful thinking.

Recently, a twelve-year-old, partly talking to himself, said something like this, "I think I'll get that switch engine for my train (electric). I need to have a new power unit. I can't pay all the twenty-four dollars but perhaps I'll get some money on my birthday. Then I'll go down to the hobby shop, but I might buy that other one . . . ." This type of thinking is sometimes labelled associative thinking—one idea leading to the next. It could be called reverie or even fantasy.

A short while ago, a ten-year-old who had been starting fractions in school came home and said, "Mom, one-half is two-thirds of three-quarters, isn't it?" His mother gulped and had to do considerable figuring for here was a child arranging data in a fresh way. He was doing creative thinking, perhaps on a smaller scale than a scientist or poet does it, but still creative thinking.

#### FACTORS IN THINKING

Every classroom abounds in such examples of children's thinking. The research literature is scattered and far from clear, but at this stage of our knowledge it seems possible to distinguish four inter-related features of a child's thinking:

1. Materials of thinking—his sensations, perceptions, memories, images, and concepts. These are the results of his experience, past and present, the knowledge which he can bring to thinking activities.
2. Motives for thinking—his emotions, needs, attitudes, and habits of thought which help determine the materials he will select and use and which will give direction to the thinking processes.
3. Processes in thinking—his patterns of activity in thinking such as selecting, eliminating, manipulating, and organizing the data involved. These are based on seeing relationships. The patterns may be combined into such processes as associative thinking, concept formation, problem solving, and critical and creative thinking.
4. Abilities in thinking—the techniques, habits, and guides to thinking which can be specifically learned and developed, at least to some extent, by children under the guidance of informed adults. They may include such particular devices as how to work out the meanings of unknown words, detect propaganda devices, or follow the sequence of ideas in a passage by noting such words as then, next, or later.

This condensed psychology of four factors in thinking could be expanded in many ways. Whole books have been written on one process in thinking, such as problem solving or creativity. Currently, psychologists are concerned with influences on perception, with the many emotional and other factors that may affect the building of the child's percepts. Each child apparently puts something of himself, his personality and his problems, into what he perceives in a picture or finds in a story.

Children's percepts develop into their concepts, their verbal labels with meanings attached. The research literature on children's concepts is perhaps the most complete section of the field at the present



time. Beginning with G. Stanley Hall, literally hundreds of studies have been made of children's understanding of terms in science, social studies, mathematics, and other areas. All teachers know some schoolboy "boners" indicating incorrect concepts and many have been astounded at the knowledge even a young child may have of aileron or Mars.

The psychology of thinking is complex because thinking is complex. This is especially true where such processes as problem solving or critical or creative thinking are involved. The present article indicates only a few possibilities in understanding children's thinking and is concerned with only one application of knowledge of thinking—what can be done to cherish it during reading instruction in the school program.

#### DEVELOPING CLEAR THINKING

How can the child be helped to think clearly and well? How can we get him to say, "I can almost see that new puppy the children have in the story" (perception) or "I know what is required in this question" (problem solving)? How can children be helped to feel and to write the lines such as one ten-year-old did: "My heart is all aflutter, like the washing on the line" (creative thinking).

How can reading give children percepts, concepts, and memories, and how can they use these materials in the four or five main processes of thinking? The answer is not complete but the child's reading is one of the strategic places to help his thinking whether he is reading readers, or newspapers, or textbooks. In second, sixth, or eleventh grade his reading offers a rich assortment of opportunities for developing abilities in clear thinking.

*Reading can help the child locate the facts.* These are the raw materials of his thinking. Concepts are words with many ideas attached to them. The excursion, the science experiment, the construction work, all are not fully realized unless the child has a chance to talk, read, and write

about them. The verbalization of the experience is an aid to clear thinking. It is the teacher's check on whether the children have understood the meaning of the round house, the natural phenomenon, or the diorama. Reading the experience chart or one another's reports of a school activity quickly develops into thinking about the content.

But our storehouse of books, magazines, and newspapers not only supplements previous experience, it adds new experiences. A good story tells of the far away or long ago. A good reading text contains "helpers." Accordingly, beginning in the primary grades, the teacher develops skills in locating facts—how to use the table of contents, the index, the dictionary, the graph, the card file, and typographical aids in books. Skills in locating will give the child additional concepts, images, and memories as the materials of his thinking.

*Reading can help the child select and evaluate ideas.* Facts by themselves are interesting, but they become valuable as they are chosen, eliminated, and organized into larger ideas. Critical thinking involves reorganization of facts. The teacher says, "What facts in our story, when put together, tell us that the Indian chief was a good man?" "Why would you say this boy was cowardly, this one brave?" Children need help in discovering that some facts are pertinent, others unrelated. This is as true of a character study as of an arithmetic problem or a "What will happen next?" question.

Readers and texts are often arranged to help such thinking. Sometimes they give ideas chronologically, sometimes logically. Around the sixth grade level pupils profit from direct instruction in finding the organization of ideas in a passage. Such a task is not just a question of headings and sub-heads; it is an illustration of one way of thinking.

Teachers who are helping a child select and evaluate ideas give guidance in choosing between competing sources (see any



newsstand). They help children distinguish the relevant and irrelevant, the important and the trivial. Reading instruction at all grade levels can help children recognize differences in fact and opinion. Reading lessons can help a child judge the adequacy of an action or an idea; they can encourage the use of several sources and sometimes a check on the author's competence. Critical thinking begins early and develops slowly.

*Reading can develop into problem solving and creative thinking.* Reading lessons in any good school today go beyond humdrum word-calling. Instead, the reading act includes understanding, interpretation, and use. Even a so-called "drill lesson" (such as a phonics lesson on the *m* sound or the *oat* family) may involve discovery and fresh application. Children not only follow literal directions or fill in blanks, they use their reading to solve problems that have arisen during discussion of the story or in related school activities. The teacher or pupil says, "Read the part that tells . . . ." This story can help us see what a "flash flood" in a river is; that textbook will explain the what and how of an Indian teepee. The teacher asks, "What other family do you know like this one?" Or "How can we put these facts in a picture, a chart, a map, or a written description?" Here are classes where children are being encouraged to think clearly.

*Thinking about the material read may operate on at least four different levels.* As a part of their reading children may:

1. Talk over details given and the relationships between them as stated in the printed page.
2. Express personal feelings about the individual's behavior or statements in a story or factual selection.
3. Give illustrations and analogies from their personal experiences which support or criticize conclusions about what happened and why.
4. Make inferences concerning the events of the story in terms of either cause or effect, with especial reference to the human motivations involved.

Particularly in the third and fourth types of action they are learning to solve their problems or engage in creative activities as a result of their reading.

Probably there has never been a time when children or adults needed to think more about their reading. One writer has suggested that about 75 per cent of the people of the world today live under some sort of censorship of ideas. Children in some American classes meet only cut-and-dried ideas. In a time when it is not too fashionable to disagree, or even to ponder out loud, the school is one of the last strongholds of clear thinking. Teachers must know something of the materials, motives, processes, and techniques of children's thinking. Then they can begin to encourage it in primary grades and to expand it all through school. They can help children to

Think before reading

Think while reading

Think after reading

Think beyond reading

*In the midst of the complexity and confusion of modern life, reading and literature have a peculiar part to play in offering escape from a far too pressing world.*

— Dora V. Smith



# CHICAGO—PRINTING CAPITAL OF THE UNITED STATES

C. C. HAFFNER, JR.<sup>1</sup>

R. R. DONNELLEY AND SONS COMPANY

ANYONE looking up a number in the telephone directory, shopping from a mail-order catalog, or turning the pages of some of the nation's best-known magazines is probably using a product of Chicago's vast printing industry. Printing here runs almost even with the steel industry in the number of people employed. Its total payroll exceeds that of the meat

claim to the title of commercial printing center of the nation is strong.

From presses in Chicago come such large circulation magazines as *Life*, *Time*, *Look*, *Cosmopolitan*, *Good Housekeeping*, and *Harper's Bazaar*. The new sports weekly, *Sports Illustrated*, launched this year by Time, Incorporated, is printed here. One printer alone prints more than 5 million magazines each week for a single publishing house. Telephone directories, catalogs, and pocket-size books are shipped from Chicago by the carload. An uncounted number of labels, wrappers, posters, greeting cards, cigar bands, and other volume products are turned out, along with tickets representing billions of rides on railroads, airlines, buses, and street cars. The rise of Chicago to its present-day eminence in the field of graphic arts is an important part of the long history of printing.

Let's take a look at some of the first steps in the development of printing. Several of the ancient peoples used seals to impress clay, and later inked the seals to carry an image to the printing surface. The opening of a grave in a Buddhist Monastery in China yielded samples of finely preserved documents dated from 406 to 997 A. D. The printing was done from engraved wooden blocks.

Printing is generally considered to have begun, however, with the invention of movable type, which did away with the laborious writing of books. There has been some argument as to whether Coster in Holland or Gutenberg in Mainz, Germany, printed a book from the first movable type. Quite probably, Gutenberg printed the pio-

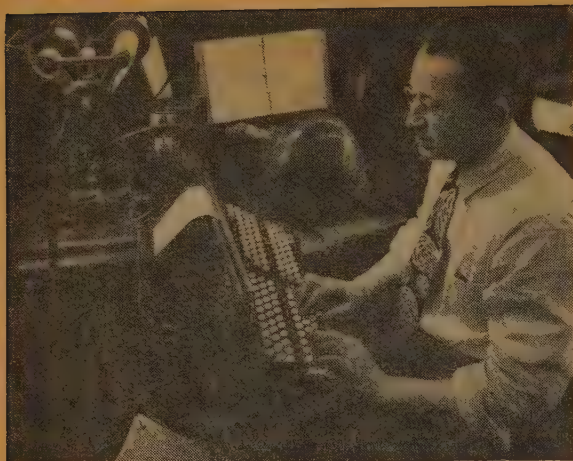
<sup>1</sup>Board Chairman and Chief Executive Officer



Forerunner of The Lakeside Press

packing plants by a considerable amount. The Graphic Arts Association of Illinois estimates that about 2,500 printing and related establishments are concentrated in the Chicago metropolitan area. Not including the huge newspaper printing plants, they employ about 90,000 persons who produce printed material valued at more than 500 million dollars yearly. The companies range in size from one-man shops to three of the nation's largest commercial printing enterprises. Chicago's





A Monotype Operator



Making Up a Form on Workbank



A Type Form for the Press

neering book some time between 1444 and 1448. A few years later, but before August, 1456, the famous *Gutenberg Bible* was printed. This assured the success of the new technology. There are, incidentally, 13 of the almost 300 original *Gutenberg Bibles* in the possession of libraries and private collectors in the United States.

It took another 350 years to bring any appreciable improvement in printing methods, which is difficult to believe in these days of rapidly improving machinery. While Gutenberg had given the world movable type, that type had to be set by hand. Each letter, each punctuation mark had to be picked out separately from a separate box, one by one, to make the printed line of a book or newspaper. The old-time printer sat on his high stool taking the letters out of the boxes and arranging them upside down and backward in a "stick."

The year 1885 is generally considered to have opened the era of machine typesetting. In February of that year, Ottmar Mergenthaler presented to the public his invention, later named the linotype machine.

#### PRINTING BEGINS IN CHICAGO

Printing in Chicago started in 1833, the year John Calhoun established the first press here. He published the city's first newspaper, the *Chicago Democrat*, and did job printing on the side. John Wentworth, later mayor, became editor of the paper in 1836. On July 24, 1861, the paper was absorbed by the *Chicago Tribune*, which had been established fourteen years earlier.

Mr. R. R. Donnelley came to Chicago from Hamilton, Ontario, on October 20, 1864. Then twenty-six years of age, he joined a Chicago religious publishing firm, Church and Goodman. A few years later he formed The Lakeside Publishing and Printing Company. The company's plant, located at the southwest corner of Clark and Adams Streets, was burned to the ground in the fire of 1871. Besides



losing his plant, Mr. Donnelley lost all of his money and personal possessions.

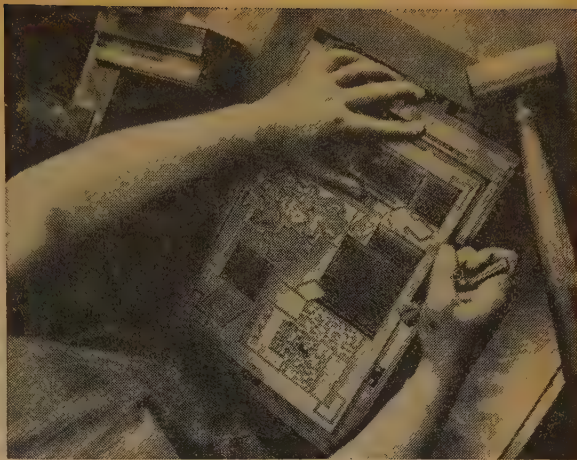
The next morning as he was walking in the rubble, he met Patrick J. Healy, one of the founders of Lyon and Healy. Mr. Healy, who had also been burned out in the big fire, gave Mr. Donnelley twenty dollars, exactly one-half of the cash he had in his pocket. With that sum to finance his search for facilities with which to start over again, Mr. Donnelley went East and persuaded manufacturers there to sell him a press and other needed equipment on credit. Credit was also extended to him to cover shipping charges to Chicago.

The firm he re-established, at first in a shack on Canal Street, had several partners until 1883, when it became R. R. Donnelley and Sons. In 1890 it was incorporated as R. R. Donnelley and Sons Company. One of the second generation is R. R.'s son, Thomas E. Donnelley, now eighty-seven and no longer active in the business, who headed the company during the fifty years of its greatest growth.

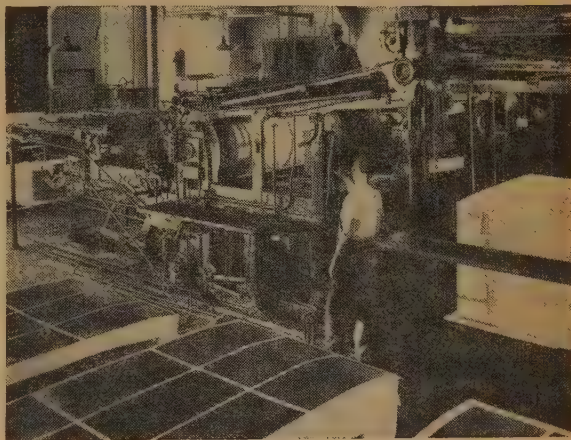
The rise of Chicago as a printing center is due in no small part to the booming demands of a sister industry, the big mail order houses headquartered here. The W. F. Hall Printing Company is one of the firms that has helped bring Chicago-printed catalogs to farms and small towns all over the United States. N. H. Van Sicklen began the company in 1888, in the basement of his home on Cottage Grove Avenue. His main work was the printing of handbills and notices for Montgomery Ward and Company.

Early in the century, after the company had been taken over by W. F. Hall (the name was changed to the present one in 1894), it printed Ward catalogs at the rate of 500 per day. That was considered a printing miracle at the time, but today the company turns out that many in about eight minutes.

Altogether, it is calculated that more than 40 million large mail catalogs are printed in Chicago each year. Adding to



Locking Up a Type Form



Flat-bed Letterpress Printing



Trimming Telephone Books





The Lakeside Press

this the smaller catalogs which supplement them, the total is closer to 100 million of these merchandising volumes.

The youngest of the three major printers in Chicago is the Cuneo Press, Incorporated, which was founded in 1907 by John F. Cuneo, then only twenty-one years of age. He bought the book-binding business of Jenkins and George and, in 1919, took over the Henneberry Company, a printing house which had been organized in 1900 as the Alhambra Book Company. Besides its Chicago plant, the Cuneo Press now operates plants in New York, Philadelphia, Milwaukee, and Los Angeles.

Andrew McNally formed the firm of Rand McNally and Company in Chicago in 1864, eight years after he had come to America from Ireland. By 1876, his presses were turning out wall maps, pocket

maps, and atlases in large quantities. Rand McNally today produces more than 100 million maps a year besides maintaining an extensive job printing department.

Another of the larger printing establishments in Chicago is the American Colortype Company which was formed in 1902 by a merger of five companies, two of them Chicago concerns. The formation of American Colortype coincided with improvements that made color process printing commercially practical.

The research which led to the production of *Life* magazine is a dramatic chapter in the history of color printing. During the 1930's, most of this work was done on flat sheets fed into the press one at a time on which two colors were printed. Then, if full-color process printing was being done, the sheets were dried and fed through



again to pick up the remaining colors. Research was under way at the Donnelley Company to find a way to print four or five colors simultaneously without smearing on a roll-fed press run at high speed. One day the research staff, after long collaboration with press builders and ink manufacturers, found the solution in a quick-drying process; and, by coincidence, the next day Henry Luce came in with the idea of *Life* magazine and asked if the problem could be solved.

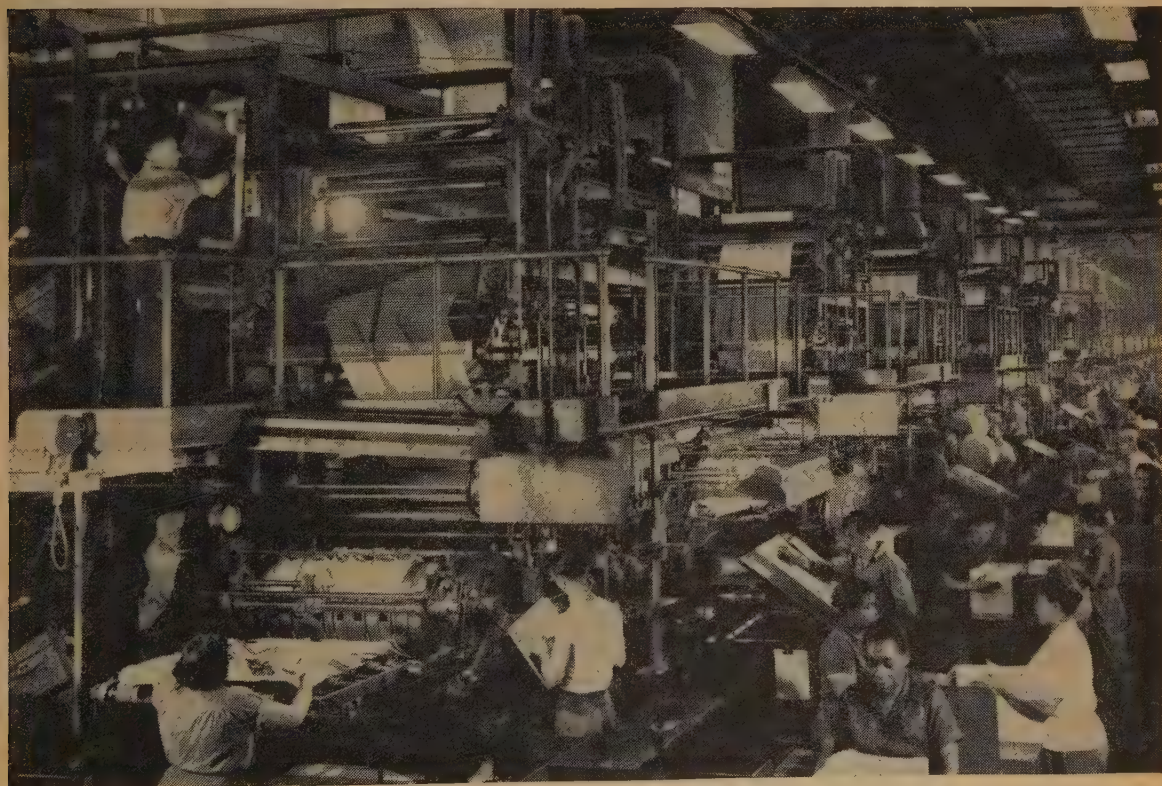
### THREE BASIC PROCESSES

Within Chicago can be found experts in all phases of the complex printing industry. Whatever their specialty, they are all engaged in one or more of the three basic processes of printing: letterpress, gravure, and offset.

Letterpress is the "traditional" method of graphic reproduction. The oldest and best-known method, it is sometimes called relief printing because it consists of mak-

ing impressions from the raised surfaces of type or plates. The type is set either by hand or by machine; plates are usually made by photoengraving. There are many kinds of presses which print by this process and the bulk of all printing is done by letterpress. Most newspapers and magazines are printed in this way.

The offset printing process, which ranks second in volume of production, is used for a large amount of commercial work. Offset lithography is based on the mutual antipathy of grease and water, a principle chanced upon in 1798 by a Bavarian musician, Alois Senefelder. He scribbled a laundry list on a piece of polished stone with a greasy crayon and later discovered that impressions of what he had written could be transferred from the stone to the paper. Use of the process spread rapidly. In 1825 colors were applied, and the Spanish painter Goya used this process when he executed his famous bull-fighter litho-



Battery of Rotary Presses Necessary for Volume Printing



graphs. Offset printing is done on a "plane" surface and gives outstanding color reproduction. In recent years such magazines as *Fortune* and various religious and photographic magazines have been printed in part by offset techniques. It is also especially adapted to printing on tin and other metal sheets.



A High-Speed Modern Rotary Press

The third type of printing is gravure, sometimes called intaglio. In this, lines are cut into a plate by a sharp tool or by chemical etching. Ink flows on the plate; then the surface is wiped or scraped clean, mechanically, leaving ink only in the depressed parts. When paper is brought into contact with the plate, the ink is picked from these "wells." The gravure process is considered best for the reproduction of fine detail in photographs. It is, therefore, well adapted to "long run" printing; a plate may be used to produce as many as one million impressions. When gravure printing is accomplished on web-fed rotary presses, it is known as rotogravure, commonly used in printing magazines, labels, wrappers, and newspaper supplements.

Besides being one of Chicago's biggest and oldest industries, printing is also one of the most technical. The evolution of modern, high-speed presses has required endless mechanical, electrical, and metallurgical research and invention. Where a few years ago a press might cost 100 thousand dollars, now the big electrically-driven multi-color presses cost more than one million dollars.

The late Mrs. R. R. Donnelley told employees in 1924, a quarter century after her husband's death, that good times for the Donnelley family were invariably "five years ahead," since the Company always seemed to need a new press. Jokingly she added, "I made up my mind that the inventors of printing machines were very diligent, constantly making new appliances so that printers always needed new presses."

Technological advances in printing were matched by the need for skilled persons to run the machines. Printing is an industry of crafts. An apprentice training program was established in 1908 by T. E. Donnelley. One of the first programs of its kind in America, this school accepts high school graduates of good character, with better than average grades, for specialized training. Students divide their time between studies in the apprentice school and actual work in the plant.

The availability in Chicago of a large force of skilled working people has been a major reason for the increasing concentration of printing facilities here; other factors have also contributed. Chief among them is Chicago's position at the crossroads of all transportation. Raw materials and equipment, too, are readily available.

The story of printing in Chicago is not solely a record of impressive production statistics and the development of intricate machinery. An appreciation of printing as a fine art has always challenged Chicago printers in their efforts to match quantity with quality. Some of the world's finest printing is now produced in the city.



# ATOMIC ENERGY ENTERS THE CLASSROOM<sup>1</sup>

GEORGE L. GLASHEEN<sup>2</sup>

UNITED STATES ATOMIC ENERGY COMMISSION

**I**N A FEW short years, atomic energy has come of age in America's classrooms. In a few short years, it has found its place in the elementary as well as in the secondary school curriculum, in the social studies classes as well as in the physical and life sciences. More and more are textbooks including a treatment of the subject. Better and more films are becoming available that stress the peacetime role of atomic energy, its place in our present economy as well as in our lives in the future. Teachers are acquiring an increasing familiarity with the atom, albeit sometimes from their more scientifically inclined students. They are bringing atomic energy to hundreds of thousands of our Nation's children, and to their parents as well. This is good. A broad public understanding of this greatest of all material forces is necessary if we are to comprehend fully the implications it holds for all of us in terms of human betterment in the fields of power development, industry, medical research, and agriculture, and in terms of human destruction in the field of atomic weapons.

The logical place to engender an understanding of atomic energy is in our Nation's schools. That they appear to be assuming their role of responsibility in this regard is certainly evidenced by the mounting number of requests received daily, by the Educational Services Branch of the Atomic Energy Commission, for information from students and teachers alike. These requests cover all aspects of atomic energy. A student seeks information on the progress of the atom in the field of medicine. A teacher in a vocational school wants to learn more of what is being done in agriculture with radioactive isotopes.

Another wishes to know how soon it will be before the atom will heat our homes and run our machines of tomorrow. Students and teachers alike inquire concerning the President's proposal for an International Atomic Energy Agency and the possibilities it holds for an enduring peace. Science students ask questions concerning the structure of the atom. Government and history students are as earnestly eager to learn something concerning the structure of the atomic energy enterprise of this country, its history, and its functions.

Yes, within a few short years it is fairly safe to say that there will be very few classrooms in America which will not have felt the impact of atomic energy in one way or another or which will not be studying it in one class or another.

## WHAT SCHOOLS ARE DOING

What are some of our schools doing today that might be of interest to other schools which are planning programs on atomic energy? Let's examine a few. The New York City Board of Education has been very active during the past four or five years in introducing its teachers to atomic energy. One of their more significant courses was on the handling and use of radioactive isotopes in the secondary school classroom. Here teachers learned to use radioactive materials, participated in experiments to familiarize themselves with this new tool of science, and upon

<sup>1</sup>The Journal has published several other articles on atomic energy: "Radioisotopes in Biology," by Nathan H. Woodruff and E. Eugene Fowler, March-April, 1950; "Peaceful Aspects of Atomic Energy," by Meyer Weinberg, May-June, 1950; "Atomic Energy and World Economy," by Gordon Dean, May-June, 1951; and "Peacetime Applications of Atomic Energy," January-February, 1955.

<sup>2</sup>Chief of the Educational Services Branch, Division of Information Services.



their return to their classrooms were able to introduce their students to the radioisotope, described by many as the greatest invention for scientific research since the microscope. The New York City teachers were eager to let others throughout the country profit from their pioneering effort in this field and they prepared a booklet entitled *Laboratory Experiments with Radioisotopes for High School Science Demonstrations*. This was published and is now available at thirty cents a copy from the Government Printing Office, Washington 25, D. C.

Other school systems which have followed the lead of New York City and which have conducted similar courses include those of Springfield, Massachusetts; Glen Ridge, New Jersey; and the Board of Education of the State of Washington. Loyola College of Baltimore, Maryland, also conducted a course of this nature for the teachers of that area.

The summer workshop has been a popular device for acquainting teachers with the subject of atomic energy education. There, during a concentrated period of from one to several weeks, teachers listen to lectures on various phases of atomic energy, participate in experiments, view films, and conduct roundtable discussions. Thus they orient themselves to this new field of knowledge and equip themselves with valuable material for classroom use.

Some excellent workshops have been held in the past at Oregon State University, the University of Idaho, the University of Nebraska, Harvard University, Rhode Island College of Education, and New York University, to mention but a few.

Many school systems also have conducted inservice training courses for their teachers. A notable one was that conducted by the Board of Education of the City of Chicago for its teachers during the school year 1949-1950. Baltimore, Maryland; Reno, Nevada; and Cambridge,

Massachusetts, are examples of what other schools have done. Usually consisting of one- or two-hour lecture and demonstration periods per week, and continuing during a semester or more, they illustrate what teachers can do on their own, generally with local resources, in developing adequate programs of instruction on the science, phenomena, and implications of atomic energy.

Noteworthy, too, are the contributions of some state departments of education. The State Department of Public Instruction at Lincoln, Nebraska, has published a unit, *Facing the Fact of Atomic Energy*, to guide its teachers. Oregon also has issued its atomic energy curriculum aid entitled *Learning About Atomic Energy*. Washington devoted the March 1950 issue of the *Washington State Curriculum Journal* to "This Atomic Age." An important contribution to the literature on atomic energy education was made by the State Department of Public Instruction at Des Moines, Iowa, which has developed a most comprehensive set of teaching guides designed for use at the elementary, secondary, college, and adult levels.

The Atomic Energy Commission is, of course, most anxious to assist in the development of such teacher training programs, when requested. Believing that its role should be essentially an advisory one, it is ready to help in suggesting competent personnel, to indicate where appropriate films may be secured, and to furnish limited quantities of literature on atomic energy which may be used for curriculum development. In this way it hopes to be able to serve the educators and the schools of America in a manner consistent with the American concept of education, as a local prerogative and responsibility. It helps to provide the source materials; it leaves the job of translating and adapting these source materials up to those professionally best equipped to do the job—the educators.





# CHICAGO'S \$50,000,000 PARKING PROGRAM

DICK VAN GORP<sup>1</sup>

DEPARTMENT OF PUBLIC WORKS<sup>2</sup>

**W**HEN Parking Facility Number 8, a dignified structure of twelve stories for the parking of private automobiles, was opened for business on October 8, 1954, at 110-120 North LaSalle Street, something like a galvanic current swept the city, via the press, radio, and television. And the current shot beyond the confines of the city and its urban area to the far corners of the nation by way of press wires and magazines. The news and pictures caught the fancy of the country.

For, Chicago was showing the way — the way for municipalities to lift themselves from the morass of traffic congestion, a morass in which all great cities are sunk to a greater or lesser degree. Facility Number 8 was a symbol of what is to follow and what can be accomplished by vision, courage, and hard work. Facility Number 8 marked the beginning — only the beginning — of one phase of Chicago's fight on traffic congestion, previous phases incorporating one-way streets, sterner enforcement of traffic laws, the limiting of

heavy trucks in Loop streets, and parking meters.

Facility Number 8 is the first of a cluster of ten multi-level parking garages to be built by the city in a 50 million dollar program of garages and surface parking lots, to overcome traffic handicaps forced on her because the streets of the city were laid out in the horse and buggy era. Until the dawn of the twentieth century the horse-drawn vehicle was the prime mover of city people and goods. Even in those days the city suffered tense and profane traffic congested moments, when steeds, wagons, and drivers tangled. But with the arrival of the motor car, congestion really raised its ugly head, and as the motor cars grew in number year by year, this ugly head became compounded, like the Hydra of old.

By 1946, when World War II had ended and the motor car manufacturers were again in production of automobiles after

<sup>1</sup>Chief Engineer

<sup>2</sup>Bureau of Engineering, City of Chicago



years given over to making war goods, the traffic tide welled to new and dizzying heights as auto-hungry veterans and millions of others purchased new cars. The city leaders pondered the scene and came to the conclusion that measures on a heroic scale were imperative in order to obtain adequate relief.

Machinery was set in motion by the City Council and civic leaders for a survey of needs, which resulted in the first design proposals, parking location sites, and financing. Financing by bond issues based on revenues from parking facilities and street parking meters was decided as the most feasible and flexible program.

#### LEGISLATION

But before getting under way, state legislation was necessary. In 1947 the Illinois legislature passed the law authorizing and empowering the city to sell bonds to initiate the work. In 1949 the law was amended to permit cities to purchase and operate parking lots and build garages and pledge revenue from them to redeem the bonds. The State Supreme Court of Illinois held the law valid in a test case brought to determine the right of a municipality to lease its facilities to a private operator. This decision, rendered on September 21, 1950, cleared the way for Chicago.

Following this the Chicago Association of Commerce and Industry and the State Street Council, two of Chicago's outstanding civic promotional organizations, came forward with a joint report prepared by two prominent consulting engineers on a survey of parking needs for the central business area. At the same time the Southtown Plan Association, in conjunction with the Englewood Business Men's Association, suggested proposals for off-street parking facilities in the South Halsted and Sixty-third Streets area.

With these reports as a nucleus on which to work, the City Council passed an ordinance authorizing the City to enter into an agreement with a group of investment bankers, which agreement provided

for the financing of the parking program. On the heels of this authorizing action the financing group appointed a leading consultant engineering firm to make a detailed survey and report on the program for the Central Business District, the Sixty-third and Halsted Streets area, and the North Michigan Avenue area. This survey and report on necessary facilities was approved and recommended by the Bureau of Engineering of the Department of Public Works and accepted by the City Council.

#### FINANCING

On September 18, 1952, the City Council passed the ordinance authorizing the issuance of up to 50 million dollars in Chicago Parking Facility Revenue Bonds, and simultaneously authorized the initial sale of \$14,800,000 in bonds for the construction of multi-level parking facilities in the Central Business District and for surface parking lots in the Sixty-third and Halsted Streets area on the South Side. This first sale provided for facilities for what was termed Project A-1.

On October 31, 1952, the City Council authorized the sale of an additional \$7,800,000 in bonds for Project A-2, which provided for multi-level structures in the North Michigan Avenue area.

A third sale of bonds was authorized on April 7, 1954, calling for \$4,900,000 for Project A-3, which provides for 26 surface parking lots in 6 outlying shopping and business centers of the city, and one multi-level parking structure on the North Side.

The financing by a single bond issue has been described as the most unique and flexible, inasmuch as new facilities may be built anywhere in the city as parking needs arise, if revenue prospects are good. And the pooling of all earnings from parking facilities with parking meter revenues, it is maintained, will guard the city program as a whole, should any one individual unit display a financial weakness.

With the financing arranged and the necessary money in sight, the Bureau of Engineering rolled up its sleeves and



plunged into the work of directing, supervising, and approving designs and plans for the new facilities produced by leading architectural firms of the city. Because of the tremendous amount of work involved in the planning and designing and the need for speed, it was necessary for the city to turn to outside aid for this phase of the program.

#### DESIGNS AND PLANS

By the middle of 1953, first designs and plans were ready and bids for the initial facility contract were advertised for. And in December of that year the first earth was turned for Facility Number 8.

From then on plans flowed out swiftly, contracts were let, and hundreds of men plus fleets of machinery went to work and progressed with such speed that as of today two facilities are completed and six others are in various stages of construction. All are scheduled to be completed and in operation during 1955. The combined capacity of the 10 multi-level facilities and 34 paved parking lots will be 10,913 cars.

The multi-level parking facilities of Chicago are of two types—the hoist or elevator type and the ramp type.

The feature of the hoist type facilities, of which there are three, are the electrically operated elevators which take cars from the ground floor and distribute them to a selected stall on any floor. These elevators, the first of their kind in Chicago, are designed and manufactured by the Bowser Engineering Company of Des Moines, Iowa. The elevators are unique in that they not only move vertically, but also horizontally. A press of a button sends the elevator upwards to the level desired and then sidewise to the stall selected. A central control board keeps a record of each car. The three garages which embody the hoist type distributors are Facilities Numbers 1, 5, and 8.

The ramp type facilities are those of the conventional type; whereby cars are driven to a designated stall via ramps between floors. A feature of the ramp type facilities

is “first access” parking stalls, a number of which are incorporated in all of these garages. They are primarily for “self-parking,” whereby the owner of the car parks it himself and later drives it away, without benefit of an attendant. These single row stalls are located on each side of an approach aisle enabling the driver to come and go when he desires, without fear of a car being parked behind him to delay or impede his movement. On those levels containing double rows of stalls, congestion is prevented by a servicing attendant ascertaining when the driver plans to leave; the attendant then spots the cars so that he who leaves earliest will be in a front rank.

All multi-level facilities are of fireproof reinforced concrete construction, with parking areas open to the air. Architectural design is simple, yet modern and reflecting a dignified flow of line. Whenever line lends itself to decorative treatment, brick and aluminum are employed.

A unique treatment of open walls is that applied to Facility Number 1, which soars majestically to twelve levels and fronts the Chicago River at North State and West Wacker Drive. The walls of this facility consist of strands of stainless steel,  $\frac{3}{8}$  of an inch in diameter, set 8 inches apart, and anchored to stainless steel fittings at the top and bottom of the structure. Each strand is pulled taut to withstand a tension of one thousand pounds. The center portion of the front elevation of this facility consists of a sweeping wall of enameled gray brick, which encases the hoist mechanism shaft. At about one-fifth of the distance from ground level, this tremendous soaring wall will be centered with a plaque of statuary bronze, an abstract design emblematic of Chicago's civic and industrial greatness.

Facility Number 5 is characterized by an outer screen of fixed precast concrete louvers. These louvers are 18 inches wide,  $2\frac{1}{2}$  inches thick and are set 16 inches apart. The louvers, like the barriers of



steel wires in Facility Number 1, hide the parked cars, yet allow ventilation. The elevator shaft is encased in glazed red brick.

Two other features of the Chicago facilities are (1) they are primarily for passenger cars, and (2) sales of gasoline, tires, supplies, and services such as greasing and washing are prohibited under the law which authorizes their construction.

#### PARKING LOCATIONS

The multi-level parking facilities in the Central Business District and North Michigan Avenue area are located as follows:

Number 1—On south side of West Wacker Drive, between North State and North Dearborn Streets. This is a hoist type with 14 parking levels, and a capacity of 715 cars.

Number 2—On west side of South Wacker Drive, between West Madison and West Monroe Streets. This is a ramp type with 5 parking levels, and a capacity of 1,230 cars.

Number 3—On east side of South State Street, between East Congress Parkway and East Harrison Street. Ramp type with 4 parking levels, and a capacity of 665 cars.

Number 4—In area bounded by North Wabash and East Grand Avenues and Rush and Illinois Streets. Ramp type with 5 parking levels and a capacity of 1,000 cars.

Number 5—On south side of Delaware Place between Rush Street and Ernst Court. Hoist type with 8 parking levels and a capacity of 420 cars.

Number 6—In area bounded by Huron, St. Clair, and Superior Streets and Fairbanks Court. Ramp type with two 4-level parking areas separated by a 200 x 225 foot surface parking lot, the whole having a capacity of 1,206 cars.

Number 8—On west side of North LaSalle Street between West Randolph and West Washington Streets. Hoist type with 12 parking levels and a capacity of 495 cars.

Number 9—On west side of North LaSalle Street between Carroll Avenue and Chicago River. Ramp type with one 3-level parking area and one 5-level parking area and a capacity of 650 cars.

Number 10—On northeast corner of St. Clair Street and Grand Avenue. Ramp type with 4 parking levels and a capacity of 262 cars.

The surface parking areas in the initial phase of the program are located as follows:

In the area surrounding the busy shopping and business center at the intersection of South Halsted and Sixty-third Streets on the South Side of the city; four existing lots and sites for four additional lots were purchased. When necessary improvements for parking purposes are completed these lots will have a capacity of 1,302 cars.

In the Madison Street-Pulaski Road area (West Side) four sites will be paved and improved and will have a capacity of 691 cars.

Six sites will be prepared in the Broadway-Lawrence Avenue area (North Side) with a capacity of 871 cars. This area will also include a multi-level facility (Number 7) with a capacity of 256 cars.

Seven sites are programmed for the Lincoln-Belmont Avenues area (North Side) with a capacity of 606 cars.

Three sites will be in the Roseland area (South Side) with a capacity of 211 cars.

Three sites will lie in the Milwaukee-Ashland Avenues area (North Side) with a capacity of 409 cars.

Three sites in the 47th Street-South Park area (South Side) with a capacity of 180 cars.

As already noted, the first of the Chicago facilities to be completed and put into revenue producing operation was Number 8. It was turned over by the contractor to the city on October 8, 1954, with appropriate ceremonies and immediately afterward the "open for business" sign was hung out. Its popularity and need have since been attested by the steady and heavy flow of parkers in its area, which is contiguous to the city and county building, where thousands of people come daily to do business.

Facility Number 2 was opened on December 17, 1954. Number 1 is scheduled for January opening and Number 9 is slated for February opening.

The first of the surface parking areas in the Halsted and Sixty-third Street area was opened December 3, 1954.



# PEACETIME APPLICATIONS OF ATOMIC ENERGY

EDWARD T. MINIEKA

COMMONWEALTH EDISON COMPANY<sup>1</sup>

THE tremendous destructiveness of the atomic bomb has caused many individuals to look upon this new source of energy as a menace to civilization. Actually, many of the forces that mankind has harnessed have at some time been used for destructive purposes, but the ultimate adverse impact on civilization was minor when compared to the constructive uses that were developed. Likewise, the peaceful applications of atomic energy will eventually outstrip the military uses.

The peacetime applications of atomic energy can be divided into the following two broad categories: power production and radioisotopes. To obtain power from atomic energy, a device called a "nuclear reactor" is required. In this device, the fission process of a nuclear chain reaction is constantly under control. It is like an "atomic furnace" in which a tremendous quantity of heat is generated. By removing this heat, it can be converted to useful power in conventional equipment for the propulsion of ships, aircraft, and locomotives or the generation of electricity.

The outstanding feature of atomic power is the small amount of fuel that is required to produce vast amounts of energy. For example, one pound of uranium is equivalent to about 1500 tons of good coal or 200,000 gallons of diesel oil.

Many experimental reactors are in operation, and more are to be constructed. Reactors are often large, complicated, and costly. A given reactor may assume any of a variety of sizes, shapes, or configurations depending upon its purpose, location, the various materials of which it is constructed, and the availability of these materials.

At present, nuclear power plants are not economically competitive with coal burning power plants. There are a multitude of challenging technical and economic difficulties that are encountered in the design and development of a practical nuclear power reactor. Some of these problems have been worked out, but to the many other problems the answers are still incomplete. It is reasonable to assume that American ingenuity through hard work will eventually surmount these formidable barriers.

Recently the Atomic Energy Commission has announced a program to develop five distinct types of reactor power plants. This is part of a major effort to solve some of the technological problems and to decrease the cost of nuclear power. These reactors are Pressurized Water Reactor, Boiling Water Reactor, Sodium Graphite Reactor, Homogeneous Reactor, and Fast Breeder Reactor.

It is not within the scope of this article to characterize in detail the unique technological differences between these reactors. Briefly, they are different because of the type of nuclear fuel used, arrangement of the fuel, energy level of neutrons for fission, method for removing heat, coolants used, operation, and materials of construction.

These plants are not expected to produce cheap electric power because of their experimental nature. Primarily, they will offer an excellent opportunity for learning more about the design, construction, and operation of nuclear power plants. This will be a significant forward step towards making atomic power competitive with

<sup>1</sup>Chicago, Illinois



electricity generated from fossil fuels such as coal.

The pressurized water reactor, often abbreviated the PWR, will be a full-scale experimental plant. It will be built in the vicinity of Shippingport, Pennsylvania, on the Ohio River, about twenty-five miles northwest of Pittsburgh. The plant will be designed and constructed by the Westinghouse Electric Corporation, with the Stone and Webster Engineering Corporation of Boston, rendering architect-engineering services as a sub-contractor under Westinghouse. When completed, in 1957, the plant will be operated by the Duquesne Light Company of Pittsburgh. It will have an output of 60,000 kilowatts of useful electricity. This type of reactor was selected for full-scale construction and operation because more is known about it than about any other type. It will provide firm cost data and technical information for future plants.

The Atomic Energy Commission also encourages the participation of private industrial companies in the development of nuclear power. At present, there are seventeen study groups, each of which represents one or more commercial firms. Among these is the Commonwealth Edison Company of Chicago which is associated with the American Gas and Electric Company, Bechtel Corporation, Pacific Gas and Electric Company, and Union Electric Company, in a study team, known as Nuclear Power Group. This group surveys reactor technology, makes preliminary designs and economic studies on the the feasibility of nuclear electric power.

#### RADIOISOTOPES APPLICATIONS NUMEROUS

Perhaps the greatest benefit to humanity from atomic energy will be recorded by the use of radioisotopes. Technically, isotopes are atoms of an element that have the same atomic number but different atomic weights. Their chemical characteristics are the same. They can be compared to twins or triplets that are identical in every respect except that their weights

are different. Radioisotopes are isotopes that are radioactive in that they emit various nuclear radiations through the spontaneous disintegration of the atom's nucleus. Isotopes can be easily made radioactive by irradiation inside nuclear reactors or can be obtained as the radioactive fragments that are by-products of the "fission" process.

Radioisotopes are important because they can be used as "tracers" or as a source of radiation. These substances can be used as tracers, because they can be inserted in chemical and biological reactions without affecting the processes involved. Also, since they are radioactive, they continuously send out radiations which can be detected and measured by simple instruments. For example, a radioisotope can be "traced" through a series of chemical reactions to study exactly what happens. There are many applications of this technique in the fields of physical and life sciences as well as in the industrial field.

Radioisotopes provide a relatively cheap and very flexible source of radiation. Nuclear radiation is effective in the study and treatment of disease. It can also be applied in such areas as cold sterilization of foods and drugs, the catalysis of chemical reactions, and the inspection of mechanical parts. New applications are being developed every day.

In the industrial field, many novel and interesting applications of radioisotopes have been developed. For example, radioactive gauges are used to measure the thickness of material. By passing radiation through a substance whose absorbing qualities are known, the thickness can be determined. This principle is now employed in many industries where it is essential to control the uniformity of material thickness.

For many years, cumbersome x-ray machines or expensive radium has been used for radiographic inspection of castings and welds. Now inexpensive and



portable radioactive isotopes such as Cobalt-60 can be used for the same purpose.

To measure the wear of machine tools or mechanical parts using various lubricants or operating under different conditions has been a difficult problem. For example, to measure the wear on a piston ring it was necessary to run an engine continuously for a long time in order to get enough wear so it could be detected by the loss in weight. The engine would have to be dismantled to remove the rings for cleaning and weighing to determine the wear rate. Now, by using the radioactive technique, this test is cheaper, simpler, and more sensitive. A piston ring is made radioactive by irradiation inside a reactor. With this ring in an engine, it is only necessary to drain off the oil at suitable intervals. The oil is exposed to a Geiger Counter to determine the quantity of radioactive iron that has worn off the ring. It is not necessary to dismantle the engine. Tests can be made continuously merely by draining the oil and measuring its activity.

Radioisotopes have also provided a new tool of investigation that is needed in all phases of agricultural development. This is understandable when the world's growing population is considered. New knowledge is required all the way from growing more products on the soil and getting more out of the soil to methods of processing, storing, and delivering them to the consumer.

There were certain areas in Florida, New Zealand, and Australia where livestock grazing on beautiful pastures would not thrive. Literally these animals starved to death in a land of plenty. This was a difficult problem to understand until radioactive material became available. It was found that a very tiny bit of Cobalt was necessary for animals to stay healthy on these pastures. For example, only about four parts of Cobalt in one hundred million is needed in their diet. These pasture lands are now made productive by use of mineral supplements containing cobalt.

In food packaging, manufacturers are usually interested in keeping moisture out of packaged food. Moisture diffusion rates through new packaging materials can be measured easily by tracer techniques making use of radioactive water in vapor form. Previous methods were costly and time-consuming.

In food processing, additives in the form of flavor, color, preservative, buffer, or texture betterment always presents a possible health hazard to the consumer. Toxicological evaluation of new food additives is greatly aided by tracer techniques.

Atomic energy has also provided medicine with a powerful tool for treatment and diagnosis of disease and for increasing the knowledge of physiological processes. For example, isotope tracers have been used to supply additional proof that various parts of the human body are in a so-called "dynamic state," — that is, the the organs and structures of the body are being constantly rebuilt or replaced. The very first tracer experiments demonstrated how a large portion of the food we eat is quickly incorporated into the body structures. Radioactive isotopes have also been used in arresting such diseases of the blood as polycythemia (excess red cells) and chronic leukemia (excess white cells).

Radioactive Cobalt-60, a by-product from reactors, is relatively inexpensive and plentiful. It is often used in place of radium, a very expensive and rare element, in the treatment of some diseases such as cancer.

For some time, it has been known that certain organs of the body show affinity towards various substances, such as the thyroid's partiality to iodine. In some cases, treatment of hyper-thyroidism is made possible by controlled use of radioactive iodine. A limited amount of this substance is caused to collect in the thyroid where the radiations destroy the desired amount of diseased tissue.

Diagnosis of such ailments as poor circulation is aided by means of radioactive



substances injected into the blood stream. Detectors can then be used to locate clots and restrictions to flow. Also, it is possible to measure volumes of different body fluids, such as plasma, red cells, total blood, and extra cellular fluids. For example, in the course of a long operation, it is often important to know how much blood a patient has lost. This can be

measured very easily at various stages of the surgical procedure.

Only a few of the many peacetime applications of atomic energy have been described. The release of this energy locked inside the atom is opening up new avenues of knowledge in all fields. Vast benefits to humanity will be evidenced as more and more discoveries associated with nuclear energy are revealed.

## CHICAGO'S POLICE FORCE<sup>1</sup>

THOMAS M. FROST

CHICAGO POLICE DEPARTMENT

*The struggle of law enforcement to raise its standards and earn the right to the term "profession" has been a long, difficult, and continuous one. The gains which have been made toward achieving the goal are the results, chiefly, of one factor. That factor is training.*

— J. Edgar Hoover

THE Constitution of the United States specifically guarantees to every citizen of our great country the fundamental rights of life, liberty, and the pursuit of happiness. All police officers — federal, state, and local — have dedicated their lives to see that these constitutional guarantees are maintained for all citizens regardless of race, creed, or national origin. However, whether or not their objective is to be fulfilled is determined, in a good measure, by the spirit of democracy within each individual police agency and the acquisition of proper indoctrination and training afforded each new member enlisted.

Today, the essentialness of adequate training for police officers is no longer a moot point. Police departments throughout the United States fully realize and accept the need for thorough police training on all levels. Many of the police departments have or are constructing police academies and possess a permanent staff assigned to the task of teaching police officers the powers and scope of their

duties. The Chicago Police Department has, from its very inception, trained its new personnel in the rudiments of police science and has augmented this with periodic refresher courses designed to keep its members abreast of current police trends and legal decisions.

### REQUIREMENTS

The Chicago Police Department has been governed by the Civil Service Laws of this state since 1898. Consequently, all persons wishing to join the police department must successfully pass an examination conducted by the Civil Service Commission of Chicago. To be eligible for such an examination a young man must have been an actual and continual resident of the city for one year prior to the date of the examination and be between twenty-one and twenty-eight years of age; he must not have reached his twenty-eighth birthday. However, persons engaged in the military service of the

<sup>1</sup>"An Address to Law Enforcement Officers," *Federal Bureau of Investigation Law Enforcement Bulletin*, January, 1948, p. 13.





Keeping Score on Target Practice



Simulating a Court Trial

*Photograph by Sergeant Joe Casey*



United States during the years of 1940-1945 are eligible if under thirty-five years of age. The applicant must be at least 5 feet 8 inches tall and weigh between 145 and 190 pounds; he must not be taller than 6 feet 6 inches or weigh more than 235 pounds. Finally, he must be in good physical condition, possess normal eyesight, and be mentally alert. If the prospective police officer fulfills all of these requirements, he is eligible to take a mental and a physical examination conducted by the Civil Service Commission.

It is a fundamental concept of good government that any type of employment involving a place of public trust, public confidence, fiduciary relationship, and respect must by its very essence demand that its members possess fine characters, good reputations, and be respected members of their community.

The Chicago Police Department follows a strict policy of thoroughly investigating every individual who is on the Civil Service list of applicants. All persons are subjected to a thorough criminal investigation. This is done by checking each name against existing arrest records, and by comparing the applicant's fingerprints against the files of this city and those maintained by the Federal Bureau of Investigation.



Practicing Jujitsu

Each individual on the eligible list is required to fill out a Police Department Questionnaire which requests information about length and type of education; employment record for a ten-year period; place of residency; names of several persons, not relatives, who can supply credit and personal references; military record, which must be verified by a photostatic copy of his discharge papers; and proof of citizenship if born in a foreign country. This questionnaire warns the applicant that any discrepancy found between actual fact and the information supplied by the applicant will be sufficient grounds for rejection by the department.

These data are given to an experienced police officer, generally a sergeant, who



Keeping Fit

makes a thorough investigation. The investigating officer then submits a complete case history to the Director of Personnel, who institutes the proper action against those persons found unqualified.

#### RECRUIT TRAINING

Those applicants found qualified are sworn in as probationary patrolmen and are assigned to the Police School for a twelve-week period of training. If a recruit fails to maintain a scholastic average of 70 per cent during his training he is discharged from the department.





Policemen Go to School!

*Photograph by Sergeant Joe Casey*

As in many other professions, a police officer incurs a certain amount of expense when he joins the police department. One of the first things he is required to do is to purchase a revolver, as well as summer and winter uniforms. This represents an approximate investment of \$300. The officer is issued a star, a baton, a whistle, and eighteen rounds of ammunition by the police department.

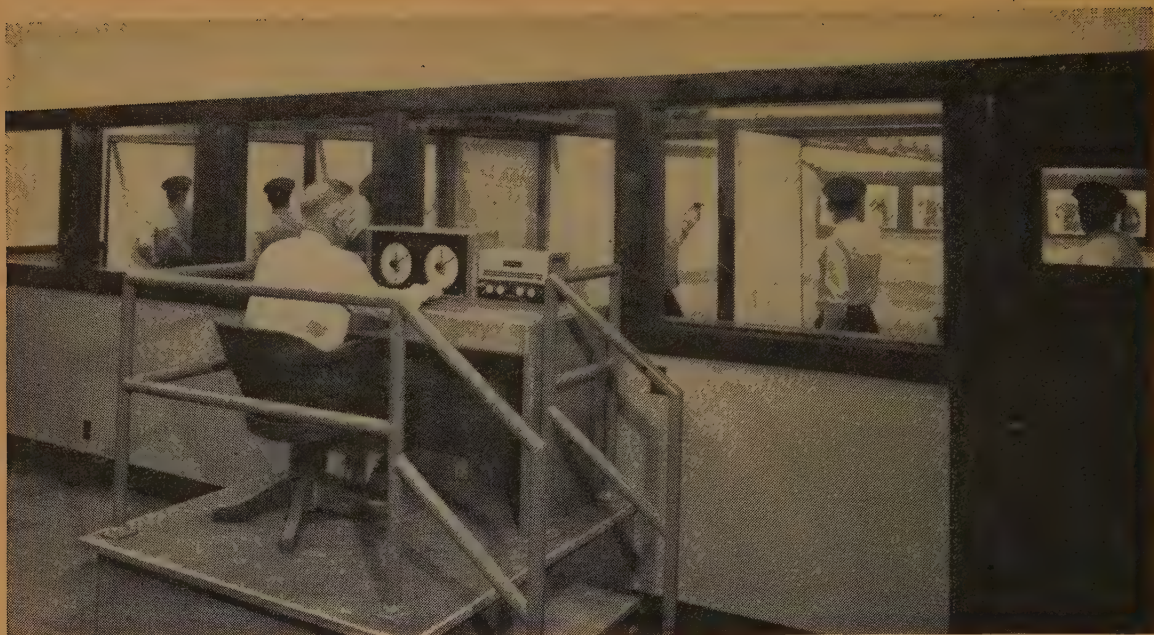
The Chicago Police Department's training program is designed to equip new police officers with a thorough and concise indoctrination into the police profession. The purpose of this training program is twofold: first, to make the officers aware of their duties and obligations to the community; second, to teach them the most concise, the most efficient, and the most skillful methods of rendering police service. In the short period of twelve weeks, a police officer is trained in all aspects of police work and by graduation is fully competent to handle all ramifications of police duty.

The recruit curriculum is divided into ten categories. Seven of these are classified as academic and include patrol, criminal law, reports, police procedure, first aid, traffic, and miscellaneous subjects. The three non-academic categories are firearms, military drill, and physical fitness.

The recruit training program consists of a forty-four hour week, eight hours per day, Monday through Friday, and a half day on Saturday. The school day is divided into two four-hour sessions. One session is devoted to academic subjects and the other session to non-academic subjects.

The Chicago Police Department appreciates the assistance rendered by experts in the various fields of human relations, juvenile delinquency, and criminal law. Lectures by representatives in these fields from local universities, social agencies and institutions, as well as prosecutors and specialists from the States Attorney's Office and the Federal Bureau of Investi-





Practice Makes Accurate Marksmen

gation, are included in the recruit training program.

#### INSERVICE TRAINING

The social mores of our country have changed considerably from what they were prior to World War II. The vast number of immigrants from war-ravaged Europe, the migration of thousands of people from the rural to the urban community, and the millions of veterans discharged from military service have contributed to the complex problems of housing, education, public health, and crime confronting the administrators of our city government.

Because the police department is an organization whose very nature is premised upon maintaining the welfare and safety of the community, the Chicago Police Department has steadfastly maintained an extensive and continuous program of inservice training and review for all its members, regardless of rank, in order to keep them abreast of the complex problems of the city and of the proper remedial action necessary to cope with and correct them.

Refresher courses in military drill and

revolver practice are held every year for all police officers. Military drill consists of instruction in the proper handling and dispersement of crowds at labor details, strikes, riots, parades, and athletic contests. All police officers are required to participate in revolver practice each month for a six-month period every year.

The standard inservice course for detectives is a two-week course which is designed specifically to bring the officers up-to-date on the latest legal decisions, advancements in scientific crime detection, and changes in police department policies. Similarly, specialized courses are conducted for lieutenants, sergeants, policewomen, juvenile officers, lock-up keepers, and police secretaries.

Early in 1951, officials of the Board of Education and of the Police Department devised a revolutionary plan for teaching police officers. According to this plan, a select group of sixty officers — each officer must have at least three years of service and be a high school graduate — would attend classes at Wright Junior College. The program of two semesters offered



courses on the college level in sociology, psychology, biology, typing, English rhetoric, criminal law, and public speaking. This educational program proved to be an immediate success and a year later it was expanded to include the facilities of Wilson Junior College on the South Side. Thus far, 440 officers have been graduated from this program; presently 214 officers are enrolled.

It is the responsibility of the Police

Training Division to organize and conduct the numerous phases of police training which are an intricate part of the Chicago police plan. This unit, headed by Lieutenant John J. Nelligan, has a staff of forty-seven officers. The majority of these men are college graduates; several are graduates of the Board of Education's program. All are seasoned veterans who have assumed the added responsibility of being teachers as well as police officers.

## BROTHERHOOD WEEK

EDWARD G. OLSEN<sup>1</sup>

NATIONAL CONFERENCE OF CHRISTIANS AND JEWS

*The spirit which lies behind our observance of Brotherhood Week is as old as our civilization. It goes back to the answer to the first man who asked, "Am I my brother's keeper?" . . . We live in a period in which the question has a new sharpness and a new edge, because there are new forces in the world which divide and threaten men, forces which work to lock each man within the prison of his own mind, which make friend distrust friend, nation distrust nation. In the face of these forces it is imperative that we heroically by word and deed give voice to our faith: that every man is indeed his brother's keeper, that no human being in the world can escape his spiritual involvement in what happens to any other human being, that no man, in the troubled sea of mankind, can be an island. . . . It is the purpose of Brotherhood Week to inspire us to give that answer for our time, with an eloquence never before heard. — President Eisenhower, Honorary Chairman, 1955 Brotherhood Week*

**B**RROTHERHOOD WEEK, February 20-27, may be a hazardous occasion! Like any special observance from Mother's Day to Education Week, it can become merely a sentimental gesture — smugly made and publicly flourished by those for whom it is merely a salve to the conscience or a sop to the community. Perhaps this very possibility of value-distortion underlies our recurrent need to think clearly about the basic purposes and programs of Brotherhood Week in its relation to continuous, realistic intergroup education.

State Superintendent of Public Instruction Vernon L. Nickell has observed that

"Brotherhood Week, like Mother's Day, is simply a dramatic reminder of an unending responsibility. We don't love our mothers any less throughout the year because we give them special recognition one Sunday in May. Neither is our year-long obligation to improve intergroup relations diminished by an annual Brotherhood Week observance in February. Only sentimentalists are content with these events in themselves. Those of us who are realists use such observances to heighten and to stimulate year-round efforts, not to quiet school and community consciences for another twelve-month period. The

<sup>1</sup>Education Director of the Chicago Region



purpose of Brotherhood Week is to focus attention on the imperative need for Brotherhood the year round, both within the United States and throughout the world."

"Human relations is the fourth 'R' of the modern school program. What happens to people in our schools and communities is very much up to all of us as teachers. Whether we work in kindergarten or in college, teaching art or zoology, we have the vital responsibility of building better human relationships among members of all the racial, religious, nationality and social status groups in our areas. This requires an educationally sound, continuous, expanding curriculum and extra-curriculum emphasis throughout the year, every year, in every classroom."<sup>2</sup>

It was a Roman Catholic priest in Denver who conceived the idea of Brotherhood Week and who, in 1932, suggested to the National Conference of Christians and Jews that they designate a special period each year to concentrate the nation's attention on the practical need for brotherhood in human affairs. "Brotherhood is something that all faiths want, something of which there is too little and of which there cannot be too much," said the Right Reverend Monsignor Hugh L. McMennan in making his suggestion. The National Conference agreed with him, and the first observance of American Brotherhood Week occurred in 1934. The week of Washington's birthday was chosen for this annual event in recognition of our first President's strong belief in the right of everyone to "worship God according to the dictates of his own heart."

Each year since then the president of the United States, who is the honorary chairman of Brotherhood Week, has invited all Americans of all faiths, races, and national backgrounds to consider together the civic and religious need for practical brotherhood in continuous daily living. So also do many governors and the mayors of every major city.

Public, parochial, and private schools along with colleges and universities all over the country are accepting that challenge. So are churches and synagogues; community organizations of many kinds and purposes; statesmen; business and labor executives; radio, television, and press management; civic leaders in all professions and of all races and religions. Last year Brotherhood Week was celebrated in over 10,000 American communities from coast to coast, and in many thousands of classrooms at all grade levels from kindergarten through university.

But school people know well that special programming should be only a part of the effort of the school to help children and young people learn to understand, work with, and appreciate others. Classroom activities throughout the year should promote understanding of the various races, religions, nationalities, and status groupings which together make up our country. Brotherhood should be stressed as an integral part of the social living or core curriculum areas from art to zoology. Intergroup education should be an all-inclusive, all-around, all-year, all-grade process, with Brotherhood Week as a time of special emphasis which can well capitalize upon the nation-wide mass-media publicity given that week during February.

Two recent pamphlets called *Building Brotherhood: What Can Elementary Schools Do?* and *Brotherhood: What Can Secondary Schools Do?* are replete with tested practical suggestions useful in planning for classroom and assembly observance of Brotherhood Week, as well as throughout the year. These and other titles, at twenty-five cents each, are available from the National Conference of Christians and Jews, 203 North Wabash Avenue, Chicago 1; as are other varied free materials. NCCJ is a civic agency and offers its services and materials to schools and other organizations which use educational approaches to problems of human relations.

<sup>2</sup>*Educational Press Bulletin*, February 1953, p. 2.



# ON PREDICTING WEATHER

CLINT YOULE

METEOROLOGIST AND NBC TV WEATHERMAN

**D**ID you ever hear a Chicagoan praise our climate? Did you ever hear one of us defend the local weather against the scorn of the Californian, the automatic challenge of a Texan, or the smugness of a Floridian? I haven't noticed any loud enthusiasm. Pushed hard enough, a local resident may mumble something about June being a mighty nice month, or a suburban wife may remark wistfully that leaves are beautiful in the autumn here. But such comments are strictly defensive and accepted as such even by the person making them.

On the other hand, ask a Chicagoan if his local weather isn't unusually changeable and unusually tough to predict. Twenty-two times out of twenty-three that does the trick. "Yes, sir," he'll say. "This is just about the toughest place in the country for weather forecasts. Why, around here even the birds hate to fly across the street for fear of getting caught in some terrible weather that's just blown in." Then ask your friend why weather forecasting is so different here. He'll have a reason. It's the tall corn around us, or Lake Michigan, or the long winters, or the summer humidity. Sympathetic TV viewers often stop me on the street, shake their heads mournfully and say, "Old Lake Michigan sure made you look silly again, didn't it? You know this is the toughest place in the world to forecast the weather. It's the lake." The comment is sometimes comforting, sometimes frustrating; but rarely is it true. Most of the time Lake Michigan's effect is purely local. In summers it sometimes cools a narrow strip of the land bordering it. In winter the lake tends to keep land immediately adjacent a bit warmer and it provides considerably more snow to its shoreline and vicinity under special circumstances. But

in a broad sense it's not much more responsible for our climate than is the tall corn.

## WHY OUR CHANGEABLE WEATHER

The main reason for our changeable weather is the fact that we live where the weather traffic is heavy. Almost nine out of every ten major storms moving across the United States pass through the Middle West. Two main storm tracks pass practically over Chicago, and two more major routes swing diagonally across Illinois from southwest to northeast. A fifth storm track lies across northern Minnesota, Wisconsin, and Michigan.

About half of all the important storms (low pressure areas if you want to be more specific) come into the United States from western Canada and/or the North Pacific Ocean. Generally, before they leave this country they have visited the Midwest. A smaller number of storms come off the South Pacific, across the Rockies, and thence over us. Another prime source of our weather is the region where Texas, Oklahoma, and Colorado are close neighbors. Wartime flyers training in that region and in western Kansas claim they used to watch new storms forming every day, and then move off toward the Great Lakes.

Besides entertaining visiting low pressure areas (storms), the Midwest also gets acquainted with most of the big cold air masses (high pressure areas) that come into the country. Dry, chilled air from central and northern Canada, Alaska, and the Arctic slides southward east of the Rockies and over us. Not so cold air masses come off the Pacific from British Columbia to northern California, and over us. The great plateau region between the Continental Divide and the coast ranges provides its own cold air, and then favors



us with it. Hudson Bay is another important source of cold air but its main thrust is more likely to be over the northeastern part of the country, giving us just a glancing swipe.

All this air mass traffic means frequent and violent changes in our weather. A beautiful, warm, sunny April day will be cluttered by fast moving clouds, followed by a heavy shower, followed by strong north winds, rapidly falling temperatures, and twenty-four hours of rain spatters, solidly overcast skies, and exasperated summer seekers. Or a bright, brisk spell of late August weather featuring cool nights and comfortable days suddenly turns into a steaming hot period of the sort you'd expect on the Atlantic coast of Panama. What we're getting then is moist air off the Gulf of Mexico, warmed by travel over the hot southern states. Climatically, Chicago is in somewhat the position of a girl greeter at Union Station. Hearty visitors blow in from north, west, and south. Each wraps the greeter in distinctive embrace, then hurries on as the next arrives.

#### WEATHER TRYING

In recent years, doctors, writers, and climatologists have been wondering what this yo-yo weather treatment does to people. As you'd expect, this Midwest weather is both good and bad; maybe more bad than otherwise. Great and rapid changes of weather make the mechanical process of living much more difficult. Active, vigorous folk have energy enough, but changing weather is trying on sick and older people. They haven't the reserve strength that's required to adjust to severe temperature and barometer changes. Fast switches of weather are hard, too, on people who suffer from heart ailments, rheumatic and arthritic ailments, and from such things as asthma, bronchitis, and sinusitis.

In addition to our rapid change of weather, we are also confronted with extremes of weather. The investigators find

unpleasant things about extremes too. In very hot weather, for instance, violent crimes increase in number, efficiency in thought, word, and deed diminishes rapidly; cows give less milk, etcetera.

On the other hand, this changing Midwest weather is great for crops. They get alternate sun and rain in the growing season. A good many city people consider crops something of concern only to farmers—but Chicago grew great and continues so, in part at least, because of its location in the agricultural center of the nation. Our changing weather is a boon for salesmen, almost any kind. Here we need a variety of clothing, well equipped houses, cars able to perform under all sorts of climatic conditions, and large amounts of food.

Midwest weather also is stimulating—if you can take the pace. It shoves people; forces them to build up their mental and physical muscles to operate under difficult conditions. It's a challenge to live in this sort of climate. It's a pleasure, too, come to think of it. And for most of us, it's a necessity.

Several years ago a Chicago newspaper asked for a piece on the private life of a TV weatherman. As I remember it, my answer referred strongly to the need for an adequate disguise, possibly a long red beard. Uncle Sam's big city forecasters usually are tucked away in some cramped corner where their closest contact with the ordinary citizen is by telephone. And even that efficient instrument has been known unaccountably to cut off calls in mid-oration. TV weathermen, however, quickly become part of the local scene. They are easily recognizable and seemingly the legitimate butt of every citizen's scorn, anger, and jest—especially the latter. It's one of the major occupational hazards.

There are, of course, great compensations. One develops tremendous mental agility and the ability to remember or manufacture facts quickly. Wake any



forecaster in the middle of the night and before you've taken your hand off his shoulder he'll be saying authoritatively, "Dew point in Old Hamswich, Vermont, forty; in Dry Bone, Texas, zero." But wake a TV forecaster and he'll look you in the eye while explaining in exactly one minute that he by no means spoke categorically yesterday when he referred to clear skies — the rain that fell by the ton was the alternative forecast.

After all, if a man makes his living by his wits he must learn the very best way to say things. He must be more wary than any diplomat; he must qualify, qualify, qualify. He always leaves himself a loophole through which he may wriggle the next day. The job requires, too, the sort of mind that can rapidly disassemble a fact, polish and varnish it, then reassemble it (good as new) but going in the opposite direction. Frequently I deliberately get into conversation with my fishing and golfing friends just to compare my figure shuffling techniques with theirs.

Rather often it occurs to me that being a television weatherman is mighty pleas-

ant work. The hours aren't long, the pay is adequate. The job gives you a perfectly unchallengeable reason for staring silently out a window for an hour at a time — maybe you're watching the genesis of a cumulo-nimbus. If my wife were to reproach me for lying half a day flat on my back in a hammock I could crush her without further argument merely by saying, "There's a front coming in; I must observe accurately the time of its arrival."

Seriously, the vital element in any weather program is the aid, information, forecasts, and comfort of the United States Weather Bureau. The Bureau office here in Chicago has been the main prop and provider for me. Its members, from Gordon Dunn and his regional and airway forecasters right on to the newest map plotters, have gone out of their way to be helpful. They've discussed and explained and watched for weather elements I'd never have seen. I'm a solidly grateful booster for the Weather Bureau in general and for the Chicago office in particular.

## NOTES FROM THE FIELD

### Suggestions for Organized Recess

LOUIS C. JORNDT

DIVISION OF HEALTH AND PHYSICAL EDUCATION<sup>1</sup>

**M**ANY principals of the Chicago Public Schools are asking for information regarding organized recess periods. In order to answer many of the questions and problems that arise, some of the more important phases of planning necessary for a successful organized recess period will be discussed. During recess periods the children are definitely under the jurisdiction of the school and their safety and care is the responsibility of the entire faculty.

If there is a felt need for an organized recess the following suggestions will aid in the organization:

1. Plan with a committee the feasibility of an organized recess.

2. The teacher of physical education is best qualified to organize the recess period and train the leaders. However, the supervision is a whole school affair and should be rotated among the faculty.
3. Upper grade boys and girls are usually chosen for leaders for the younger children; in the upper grades the children may elect their own leaders.
4. As is usual in Chicago Public Schools, boys and girls play on separate playgrounds, each room having a definite area allocated to them. A large chart designating all assignments should be made available and planned for all to see. This may also be mimeographed.
5. Student leaders must be provided with a training period every week so that they will be well acquainted with the activities to be promoted. It is usually advisable for the leaders to know the various games, both from the standpoint of teaching the games and as participants.

<sup>1</sup>Chicago Board of Education



6. Each play leader is responsible for securing and caring for the game equipment and supplies as well as for general leadership in the game itself, but other leaders may be assigned in various localities to act as sub-supply stations from which the equipment is allocated.
7. The usual supply of equipment, such as balls, Indian clubs, jump ropes, beetles, etcetera, must be augmented considerably in order to run a successful organized recess. Because of the additional usage, the various types of equipment will have to be replaced at regular intervals.
8. There should be definite plans made for bringing the children out to their designated play areas (stipulated on master chart) and for returning them to the classrooms when the recess period is over.
9. Circle games or games of low organization are taught for the lower grades and more highly organized games and preparatory skills for the upper grades.
10. The principal should not only show his interest in the organized recess period but he should accept a tour of duty occasionally along with the other teachers. Such participation is good for the morale of the staff and pupils and offers an opportunity to observe and evaluate the program.
11. The recess supervisors — one teacher for the boys and one for the girls — have definite responsibilities, such as care of the children, moving about the play area commenting and complimenting the

various groups, and observing the program with an idea of benefits and improvements.

Some of the benefits of an organized recess period are:

1. Diminishes first aid cases to a minimum.
2. Redirects fighting, teasing, and other "horse play" into a program of wholesome activity.
3. Limits undesirable language.
4. Gives the older children an opportunity for leadership under proper guidance.
5. Gives the more timid children an opportunity to take part as equals.
6. Offers definite training for participants (average child) with ample recognition of leaders.
7. Increases knowledge of games and rules.
8. Develops equal opportunity through participation.
9. Develops a high degree of socialization among the students.
10. Affords teachers the opportunity to observe the children during an activity that is vastly different from the regular classroom.
11. Makes the people of the community aware of the school training by observation of the recess period which is handled in an organized manner.

Final question after program has been in effect for some time should be: Is the program fulfilling the need for which it was established?

## NEW TEACHING AIDS

EDITED BY JOSEPH J. URBANCEK

CHICAGO TEACHERS COLLEGE

*Contributors to this section are Muriel Beuschlein, John W.*

*Emerson, Norman A. Goldsmith, Viola Lynch, Christy*

*Shervanian, and Robert J. Walker*

### FILMS

The following are available from Coronet Instructional Films, 65 East South Water Street, Chicago 1, Illinois:

*Learn to Argue Effectively.* 16 mm sound. 10 minutes. Black and white, \$50; color, \$100.

A brief discussion of the superficial aspects of argumentation. It suggests personal uses of argument and shows how a high school youth learns not to enter into arguments concerning personal taste or facts. Emphasis is on "what" to argue about and "how" to argue about subjects in conversations. There is no suggestion of "why" individuals argue. The informal atmosphere of the film is good. The constructive points are brief but usable. The film may serve as a good motivating device for a fuller, more documentary approach to the use of argumentation in various situations.

R. J. W.

*Fundamentals of Public Speaking.* 1 reel. 16 mm sound. Black and white, \$50; color, \$100. Educational Collaborator: William E. Utterback.

Public speaking can be a dismal experience as Tom, a high school student, discovers when he first tries to vocalize to his classmates his ambition to be class

president. The situation is altered after a few speech skills are clearly taught to him by a genial lawyer. Tom learns some of the fundamentals of public speaking, such as analysis of the subject and audience; planning, selection, and arrangement of materials; and a direct, lively delivery. This is a good film, especially planned to stimulate high school classes.

C. S.

### FILMSTRIPS

The following filmstrips are available from the Society for Visual Education, Inc., 1345 Diversey Parkway, Chicago 14, Illinois:

*Spring Is Here!* 27 frames. \$5.00. Colored photographs with captions.

A beautiful series of color photographs including spring flowers, birds, and many other nature pictures. Useful for children who have been to the woods and have experienced the thrill of finding jack-in-the-pulpits and have seen at firsthand the glories of nature. Although not to be used in place of firsthand science experiences and good for the intermediate grades, there is some doubt as to its use in earlier grades. Designed for kindergarten, primary, and intermediate age levels.

V. L.



*Around the World Easter Party.* 35 frames. \$5.00. Colored illustrations with captions.

A very delightful story designed to help children understand the "oneness" of the Easter celebrations the world over. Betsy, who had lived all her young life in the country, moved to the city and found many new friends at school. These children were of varied descent, but Betsy found that they too celebrated the happy Easter Season. The children went to school dressed in their various national costumes and told how they celebrated this common festival. Betsy learned that, "Easter is for everyone no matter where he lives." Excellent for late primary and intermediate grades.

V. L.

*Adventures in Art Materials.* A series of six 35 mm filmstrips: *There Is Magic in a Wax Crayon*, *Let's Paint, We Like Clay*, *There Is Art in Cutting Paper*, *You Can Create With Finger Paint*, and *It's Fun to Combine Art Materials*. Collaborator: Jessie Todd. Color, \$5.00 each; series, \$28.50.

As the title of this series indicates, each strip explores some of the creative possibilities of a different art medium or material. By means of color photographs taken by Miss Todd in her own art classes at The University of Chicago, we are shown her methods of guiding students through a series of experiences with simple art materials. Both two-dimensional and three-dimensional design experiences are treated in the series. The obvious concentration of the students on their work is an outcome of the approach to art through the exploration of the materials stressed. The series is recommended by the producer for both motivational and instructional purposes at the intermediate and junior high school level.

J. W. E.

*Animals of the World.* 35 mm. Color, \$6.00 each; series, \$55. Prepared by F. Marlin Perkins, Director, Lincoln Park Zoo, Chicago. Photographers: Bob Anderson and E. Gates Priest.

This series of ten filmstrips on mammals and reptiles has been developed from pictures taken at the zoo. Undoubtedly valuable as teaching aids for the many grade levels and adaptable for science and social study classes, these strips provide an interesting, vicarious trip to the zoo. Photographed in natural color, each frame carries a brief explanation. No teaching manual is provided and the organization is not as flexible for unit development as might be hoped. Questions are included at the end of each frame.

I. *Primates—Monkeys and Their Relatives.* While this is interesting and entertaining as a trip to the zoo monkey house, there has been no attempt to show the animals in their natural habitat. Different members of the Primates group are shown, from the small spider monkey to the huge orangutan. Comparison was made in the use of the tail as a grasping or balancing appendage.

II. *Lizards of the World.* Emphasis in this strip is on the non-poisonous lizards of North America and their economic importance. Distribution maps illustrate the widespread dispersion of the many species. The Gila Monster and the Mexican Beaded Lizard are included as the North American poisonous members of this group.

III. *Poisonous Snakes of the U.S.* This strip presents the pit vipers and coral snakes with their distribution maps, specific markings, and food habits. Of special interest is the anatomical comparison of the skulls of the non-poisonous and poisonous snakes. No mention is made of the life history of these reptiles but protective coloration is well demonstrated.

IV. *Non-Poisonous Snakes of the U. S.* The emphasis here is placed on the importance of the non-poisonous snakes to agricultural communities as killers of insects and rodents. Characteristics of the several families of these snakes are illustrated. Specific attention is given to their harmlessness in an effort to eliminate fear and prevent needless destruction.

V. *Large Hoofed Mammals.* The viewer is made acquainted with the less familiar and foreign hoofed mammals as well as those found in the United States. Distinction is made between the odd- and even-toed mammals and discussion of members of each group is included.

VI. *Bears, Pandas, and Raccoons.* These color shots illustrate the characteristic differences between the bears of the United States, Europe, and Asia. Their habits and habitats are explained as well as those of closely related groups. The viewer is amused by many of the antics of the bears in captivity.

VII. *Crocodilians and Turtles.* Divided into two sections, this strip illustrates first the many types of land and water turtles. Attention is given to the variation of appendages and shell protection. Of particular interest is the unusual Matamoras Turtle of South America with its tubular snout for breaking under water. In the section of crocodilians, a distinction is made between the alligator and the crocodile. The skull comparisons present these differences graphically.

VIII. *Snakes Outside the U.S.* The third of the snake strips, this presents the snake inhabitants of Australia, Africa, South America, Mexico, and Europe. Included are pythons, constrictors, and boas, also the vipers and the cobras. The strip concludes with some interesting shots of hatching cobra eggs. Young cobras are able to spread their hoods immediately after hatching.

IX. *Rodents.* Of special interest to the younger pupils, this strip on rodents shows many of the familiar forms: squirrels, gophers, hamsters, and rats. From a wide variety of habitats these zoo animals exhibit the characteristic incisors which are clearly depicted in the view of the rodent skull.

X. *Cats and Dogs.* The large cats of the world—lions, tigers, leopards, and pumas together with the smaller cat family representatives, the bob cat, ocelot, and others—are presented in their cage environment. Among the dog family members are the dingo, coyote, and wolf. Several shots of familiar breeds of housepets add to the interest.

M. B.

#### MISCELLANY

*Light on the Future.* International Business Machines Corporation, Department of Information, 590 Madison Avenue, New York 22, New York, 1953. Pp. 30. Free.

Very readable description of performance, construction, and business uses of digital and analog electronic computers. Teachers of high school or college classes of mathematics and physics should have it at hand; many will want quantities for class use. Illustrations. Glossary.

N. A. G.



# NEWS

EDITED BY GEORGE J. STEINER

CHICAGO TEACHERS COLLEGE

**AMERICAN PERSONNEL AND GUIDANCE ASSOCIATION**—The 1955 national convention will be held at the Conrad Hilton Hotel, Chicago, Illinois, from April 3-7. "Guidance and Personnel Work in a Dynamic Society" will be the convention theme. Dr. Gardiner Murphy, director of research at the Menninger Clinic, Topeka, Kansas, will be the keynote speaker. Other highlights of the meeting will include a college presidents' panel, and a U. S. Department of Health, Education, and Welfare report. The American Personnel and Guidance Association is a professional association of individuals engaged in various phases of personnel work in education, business, industry, government, social agencies, and service organizations. Member divisions include the American College Personnel Association, American School Counselors Association, National Association of Supervisors and Counselor Trainers, National Vocational Guidance Association, and Student Personnel Association for Teacher Education.

**FIFTH ANNUAL STUDENT SCIENCE FAIR**—The Fifth Annual Chicago Student Science Fair is to be held at the Museum of Science and Industry, April 15-17, 1955. All teachers of physical and biological science, general science, mathematics, radio, and electricity are invited to participate in this annual event. Exhibits and entries of the students and schools contributing to the Fair will be judged for awards on the basis of originality and scientific merit by outstanding educational, scientific, and industrial authorities in the Chicago area. Contributors or potential contributors are asked to formulate some definite plans soon and to make them known to the school Science Fair coordinator in their local high school. Coordinators are responsible for unifying the activities being carried on within a particular school or among those schools intending to participate in the Fair. Interested individuals or high school teachers of science should contact Gerald O'Connor, Farragut High School, 2345 South Christiana Avenue, Chicago 23, Illinois, for further information and detailed plans.

**TEN MAJOR EDUCATIONAL EVENTS OF 1954**—The Educational Press Association's *Edpress News Letter* lists these educational events as follows:

1. The unanimous opinion of the United States Supreme Court which stated that segregation of races in the public schools violates the Fourteenth Amendment.

2. Public schools of Washington, Baltimore, Wilmington, Topeka, and other border-line communities abolished dual school systems in response to the Supreme Court ruling. But the majority of Southern jurisdictions are searching for legal means to retain their traditional barriers between races in the public schools.
3. Congress amended the internal revenue code providing for tax exemption of retired public employees up to \$1,200 of their annual income.
4. Congress authorized state governors to call conferences to examine pressing problems in education, and gave the President authority to convene a White House Conference on education in 1955.
5. The Department of Health, Education, and Welfare published opinions of child experts, law enforcement officers, and school executives on ways to combat juvenile delinquency.
6. America's teacher-education institutions, with the help of major professional groups, set up a Council for Accreditation of Teacher Education to raise the standards of professional training.
7. The Commission on Intergovernmental Relations carried on intensive studies of the extent to which the Federal Government shall help support education and welfare services.
8. Comic magazine publishers set up self-censorship and code of ethics, and designated an industry-wide code enforcement machinery.
9. The Educational Policies Commission issued a controversial report, *School Athletics: Problems and Policies*, urging abolition of post-season school tournaments and advocating a balanced program of school athletics and physical education for elementary and secondary school children.
10. Municipalities and school authorities borrowed a record sum of money to build schools. Best estimates are that the total value of school bonds floated in the United States during 1954 is close to two billion.

**UNITED STATES AIR FORCE**—The Air University, the command responsible for the higher educational system of the United States Air Force, is currently developing a campaign to attract educational administrators and teachers in practically all subject-fields into the reserve program. Plans have been prepared creating vacancies for 939 reservist educators and specialists in the Air University's manning table. A breakdown of these 939 positions shows 647 vacancies for "Education and Training Officers." Vacancies exist in all grades from sergeant through colonel, with the greatest number of positions open to captains, majors, and lieutenant-colonels. Details about the new reserve program can be obtained from the Reserve Affairs Office, Headquarters Air University, Maxwell Air Force Base, Alabama.



# PERIODICALS

EDITED BY PHILIP LEWIS

CHICAGO TEACHERS COLLEGE

"Are We Discriminating Against Intelligence?" By Malcolm S. MacLean. *Educational Leadership*, November, 1954.

It is a well-established complaint that our schools do discriminate against the scholastically brilliant. This condition is partially explained as originating from our American humanitarianism with its sympathy for the handicapped. The author makes a startling comparison to show this one-sided emphasis by citing the fact that the NSSE yearbook on *The Education of Exceptional Children* devotes one 19-page chapter and a few scattered references to the "gifted" child, while the balance of the 348-page compilation deals with the slow-learners, the hard-of-hearing, etcetera. One of the most potent arguments made in the article is the systematic revelation of the many kinds of intelligence which are not given fair treatment in our educational system. Mechanical, clerical, artistic, practical, and social intelligence are considered as separate entities to clarify the issues involved, and to show the futility of trying to compare talents that are not comparable.

"The Role of Pronouncing and Sounding in Learning to Read." By Gertrude H. Hildreth. *The Elementary School Journal*, November, 1954.

Despite the tremendous interest in the place of sounding, phonetic analysis of words, and pronunciation in the teaching of reading and in remedial work, there are many teachers who are still not certain of valid applications in this area. In this article consideration is given to earlier procedures employed in developing reading and word recognition along with a clear progression to modern practices and the reasons for the changes. The recommendations on sounding and word pronunciation are worthy of serious consideration, as are the related techniques described for oral reading.

"7 Suggestions to Prospective Textbook Authors." By Walter Brackman. *The Clearing House*, December, 1954.

At some time or other every teacher feels the urge to write a textbook that will do the job more effectively than the volume in use. Some instructors actually follow through and complete a new text without checking to see if there is a market or need for the product. Mr. Brackman, the editor-in-chief of Row, Peterson and Company, gives valuable advice to incipient authors which is basically quite encouraging, and which offers constructive guidance not generally available.

"A Mother's Report on Comic Books." By Myrtle H. Gourley. *National Parent-Teacher*, December, 1954.

Rather than just join the chorus of parents complaining about comic books because it is the thing to do, this mother set out to systematically examine the situation to reach conclusions based upon facts. Her findings make "must" reading for all teachers who do not have the time to do this research themselves. Crime and horror categories were found to be the worst offenders, with love comics a runner-up. One publication even editorialized against the "do-gooders" who would do away with comics and called their arguments nonsensical; it asked the children as well as their parents to flood the Senate Subcommittee on Juvenile Delinquency with letters to the effect that comics are harmless entertainment. Mrs. Gourley agrees to the letter writing suggestion, but feels differently concerning the recommended content.

"Time and Timekeepers." By Franklyn M. Branley. *Grade Teacher*, January, 1955.

The subject of time is an intriguing one and is particularly applicable as a unit for upper-grade science. The material in this article includes many interesting items concerning the measurement of time in our country when devices were less perfect than at the present. Drawings and instructions give the details for local construction of string, sand, and water timepieces designed to arouse much interest in the classroom.

"How to Sing 'The Star-Spangled Banner'." By Music Educators National Conference. *NEA Journal*, December, 1954.

Our national anthem is often unsatisfactorily sung because of its difficult pitch and the inadequate understanding of its message. Some excellent suggestions for overcoming both problems are presented along with the music of the Service Version of the Anthem.

"Potato Printing." By John Lidstone and Elmore Ozard. *Junior Arts and Activities*, January, 1955.

A technique is described which provides creative outlets with a minimum of preparation and materials. All-over patterns are shown for reproduction on newsprint, art paper, or fabrics. A step-by-step series of photos included are adaptable for posting on a classroom bulletin board, or for use as a "filmstrip" in an opaque projector.



# BOOKS

EDITED BY ELLEN M. OLSON

CHICAGO TEACHERS COLLEGE

## IMPORTANT NEW BOOKS

Contributors to this section are Ben Amar, Margaret C. Annan, John M. Beck, Muriel Beuschlein, George E. Butler, Joseph Chada, Eve K. Clarke, Mary Cole, Mary E. Courtenay, John F. Etten, Russell A. Griffin, Paul E. Harrison, Coleman Hewitt, Emily M. Hilsabeck, Helen B. Hubbard, Louise M. Jacobs, Isabel M. Kincheloe, Vasco Krekas, Marcella G. Krueger, Vinita H. Leonard, Melvin M. Lubershane, Viola Lynch, Teresa O'Sullivan, Blanche B. Paulson, Charles W. Peterson, Ruth B. Rasmussen, Louise C. Robinson, Margaret Sandine, Irwin J. Suloway, David Temkin, Joseph J. Urbancek, and Dorothy E. Willy.

### FOR TEACHERS AND SUPERVISORS

*Improving Social Learnings in the Elementary School.* By Pauline Hilliard. 525 West 120th Street, New York 27, New York: Bureau of Publications, Teachers College, Columbia University, 1954. Pp. 139. \$2.85.

According to the author we have set up admirable social goals for the education of children but have thwarted the process by interposing ourselves too much. The chasm between the child's searching mind and the adult world is bridged only by his growth in understanding of himself as an individual and as a group member. Drawing examples from many sources, the author, with a minimum of academic theorizing, explores religious, racial, and economic differences of children, seeking a shared "feeling tone" in which the group can meet significant problems co-operatively. For the teacher there are broad clues in initiating group planning and participation in several areas of activity. For the administrator and supervisor there is a provocative challenge to measure his own educational product. B. A.

*Professional Preparation in Health, Physical Education, and Recreation.* By Raymond Albert Snyder and Harry Alexander Scott. 330 West 42nd Street, New York 36, New York: McGraw-Hill Book Company, Inc., 1954. Pp. 407. \$5.50.

Written for those who prepare teachers and leaders in health, physical education, and recreation. Useful also for students who are considering specialization in these fields, since it gives suggestions as to entrance requirements, scope of work contained in the course, and probability of placement upon completion. Problems met by a student of general education or of general or specialized professional education are listed, competencies necessary to solve these problems are suggested, together with experiences which will develop these competencies and course references. The problems of graduate preparation and inservice education of professional personnel are also discussed. L. C. R.

*Introduction to American Education.* By Paul R. Mort and William S. Vincent. 330 West 42nd Street, New York 36, New York: McGraw-Hill Book Company, Inc., 1954. Pp. 411. \$4.75.

In this text the authors have combined personal experience and extensive research to produce a competent overview of American education. As an introduction to professional courses for prospective teachers, this volume should rank high among the orientation literature in education. However, the general purposes of the text may have been overstated. An abbreviated edition, excluding the final part "The Science and Method of Education," would provide a more realistic approach to the

objectives of an undergraduate course. In its present form it appears to be better adapted for a beginning course for graduate students in education. J. M. B.

*How to Use Portable Power Tools.* By Maurice H. Reid. 432 Fourth Avenue, New York 16, New York: Thomas Y. Crowell and Company, 1954. Pp. 201. \$2.95.

In this "do it yourself" age an increasing number of people are building their own homes and garages, finishing their attics, and making major repairs. In order to speed up building construction most carpenters, contractors, electricians, and other craftsmen turn to the use of portable power tools. Most school shops have several of these tools for student use. This book is one of the first that deals with the use of this relatively new type of tool. The author discusses each type of tool at length, such as the kind to buy, how to keep it in good working order, how to use it safely, and how to use the attachments to get the most out of the tool. Anyone who has a power tool or plans to get one will find this book valuable. C. H.

*American Non-singing Games.* By Paul G. Brewster. Illustrated by Jeanyce Wong. Norman, Oklahoma: University of Oklahoma Press, 1953. Pp. 218. \$3.75.

If you reach back into your past and recall the exciting games of "Pom, Pom, Pullaway," "Lemonade, What's Your Trade?" and many others, you may wonder where these games originated. Paul Brewster has collected interesting information concerning their origin. The games are a part of our American heritage and often have their counterpart in other countries. They have been handed down from generation to generation by word of mouth and are still being played today. They possess that amazing vitality that is so common to all traditional folk material. This unique collection is useful to any teacher, playground worker, or "professional folklorist" who is looking for authentic reference material. V. L.

*The Story of Glass.* By Freda Diamond. 383 Madison Avenue, New York 17, New York: Harcourt, Brace and Company, 1953. Pp. 240. \$3.75.

An interestingly written book which in almost novel-like fashion tells the story of glass from early civilizations to our twentieth century. Historian, architect, designer, teacher, or just anyone in search of a good book will find that this is a fine choice. Manufacture from colonial to contemporary is presented. The numerous applications of glass are discussed in a comprehensive fashion. Fine photographs help to make the story all the more dramatic. P. E. H.



*Man and the Motor Car.* Edited by Milton D. Kramer. 70 Fifth Avenue, New York 11, New York: Prentice-Hall, Inc., 1953. Pp. 305. \$1.60.

This book is designed as a text to be used in schools where driving courses are taught. When one considers that more than three times as many people are killed and injured by automobiles as in World War II then the need for such courses seems quite obvious. Nearly all accidents are caused by bad driving. There is an interesting chapter on the historical development of motor cars and highways. An important section deals with the physical, mental, and emotional conditions of the driver. The major portion relates to the problems of operating a motor car safely, efficiently, and with due regard to fellow drivers. The illustrations are excellent.

C. H.

*How to Drive Better and Avoid Accidents.* By Paul W. Kearney. 432 Fourth Avenue, New York 16, New York: Thomas Y. Crowell and Company, 1953. Pp. 238. \$2.95.

One million people were killed in the first fifty-two years of the automobile's existence in the United States. Perhaps it is about time a bit of required reading be made and a comprehensive examination be given before issuing a driver's license. This book should be on such a reading list. This author has a breezy manner of presenting some interesting and essential information. One section on Touring Techniques has some material not found in other recent books on driving. Another valuable section discusses the sportsmanship of driving; a sobering section deals with the subject of drivers who drink.

C. H.

*Teacher-Parent Interviews.* By Grace Langdon and Irving W. Stout. 70 Fifth Avenue, New York 11, New York: Prentice-Hall, Inc., 1954. Pp. 347. \$5.25.

The authors attempt to explore all facets of the teacher-parent relationship in personal contacts. The reasons for these meetings, the uses to which they may be put, the processes involved, suggestive topics of discussions, etcetera, are listed in plethoric detail, much of it valuable, some necessarily banal. Surprising in the sample case studies, however, is the omission of suggestions for today's challenging problems in such areas as delinquency and human relations. The term "interview" is perhaps unfortunate. Teachers, avoiding the province of the guidance counselor or clinical psychologist, indulge in purposeful conversations with parents aimed at extending and rounding out knowledge of the child. But these are not "interviews" in the accepted meaning of the word; they are friendly, informal exchanges. Within its limitations, however, the book could be a real help to the teacher or administrator reluctant, or unable, to meet parents as people.

B. A.

*Social Thought.* By Rollin Chambliss. 31 West 54th Street, New York 19, New York: The Dryden Press, 1954. Pp. 456. \$5.00.

The author's intent to write a survey of social thought, recording such cultures and men as have exercised a decided influence on the course of human events, has been well accomplished. He covers social thought in three divisions. The first, dealing with ancient societies, describes by a generous interspersing of selections of pertinent sources the society in Babylonia, Egypt, China, India, and Palestine. The second takes up Greek, Roman, and medieval social thought. Here the weight of ideas rests on Plato, Aristotle, St. Augustine, and St. Thomas. The third presents social thinking of the modern era to mid-nineteenth century. It relies on the thinking of the Arabian Ibn Khaldun, the men of the Renaissance and Reformation, Locke, Vico, and finally Comte. Mr. Chambliss ties his narrative into a

descriptive whole by the summary presentation of each thinker's concepts or each era's ideas on such social factors as the family, government, education, human nature, property, religion, and social change. The book is written in a style which will attract to it a diversity of readers. Its academic uses, too, ought to be many. Just to mention two of these, *Social Thought* can be profitably read in the various courses covering the humanities and is almost indispensable reading in any college survey of world history. A rather full list of suggested reading to accompany each chapter is found in the appendix.

J. C.

*American Thought: Civil War to World War I.* Edited by Perry Miller. 232 Madison Avenue, New York 16, New York: Rinehart and Company, Inc., 1954. Pp. 345. 95 cents.

The growth of the American mind between the Civil War and World War I is manifested in the varied expositions of thirteen distinguished men of letters. The turbulence of philosophical dissension which characterized American intellectual life in these years is well expressed in the carefully selected passages. Each selection has been tailored in length without sacrificing the individual author's thesis, a sacrifice which is not too uncommon in anthological literature. Adding to the fuller understanding of the evolving American mind depicted by the representative writers is the editor's invaluable interpretative analysis of the era's philosophic movements. Probably most familiar to the general reader of this anthology are the works of William James, Summer, Dewey, Veblen, and Oliver Wendell Holmes.

J. M. B.

*Introduction to International Relations.* By Charles P. Schleicher. 70 Fifth Avenue, New York 11, New York: Prentice-Hall, Inc., 1954. Pp. 920. \$6.75.

This notable work is impressive in its scope, lucidity, and organization. Salient is its comprehensive treatment of the principles, dynamics, and established mechanisms for the actual conduct of international relations. Here is distinct clarity for one seeking a fuller understanding of the central significations of international politics. The nature, progress, and problems of international organization are admirably portrayed. Masterful exposition of the facts, forces, theories, and fundamental conceptions present in this field is characteristic.

C. W. P.

*Dictionary of European History.* Compiled by William S. Roeder, with an introduction by Harry Elmer Barnes. 15 East 40th Street, New York 16, New York: Philosophical Library, Inc., 1954. Pp. 316. \$6.00.

This very usable book of reference for both the student and the scholar covers a scope of subjects which ranges from the early medieval times to the present. The modern and contemporary era is quite fully accounted for both in the men and events which helped to make it. Though the weight of the *Dictionary* inclines towards the political and economic items of definitions, things cultural and aesthetic receive a coverage ample enough for the average student of European history. This should prove to be a popular volume in every high school and college library.

J. C.

*The Principles of Physical Education.* By Jesse Feiring Williams. West Washington Square, Philadelphia 5, Pennsylvania: W. B. Saunders Company, 1954. Pp. 366. \$3.75.

This sixth edition of Dr. Williams' well-known book incorporates some of his newer ideas and on the whole has a much better arrangement than that of former editions. Principles relating to the various chapter headings are stated and then discussed. Questions and references at the end of each chapter aid in review and further study.

L. C. R.



*This New World.* By William Lytle Schurz. Illustrated by Carl Folke Sahlin. 300 Fourth Avenue, New York 10, New York: E. P. Dutton and Company, Inc., 1954. Pp. 414. \$5.00.

This fascinating study of our Latin American neighbors is for the student or general reader who desires a deeper insight into those factors which have produced the complex character of the Latin American people. Each chapter deals with a separate topic. Through analyzing and interpreting the component parts of the population and civilization, the author gives us an excellent social and cultural history. The illustrations and the maps add to its attractiveness as well as to its value.

H. B. H.

*Teaching Art in the Elementary School.* By Margaret Hamilton Erdt. 232 Madison Avenue, New York 16, New York: Rinehart and Company, Inc., 1954. Pp. 273. \$6.00.

The aim of this book is to define the role of the teacher in understanding and helping the child in relation to his art experiences at various age levels in the elementary school. Specific suggestions for classroom management during the art lesson are presented. Many photographs of children participating in art workshop experiences are shown. The growth of children through painting is vividly illustrated in a portfolio of color reproductions.

M. C.

*Staff Personnel in the Public Schools.* By Willard S. Elsbree and E. Edmund Reutter, Jr. 70 Fifth Avenue, New York 10, New York: Prentice-Hall, Inc., 1954. Pp. 428. \$4.65.

A survey treatment of the problems of today's schools from recruitment to retirement. Issues of certification, assignment, salaries, in-service education, etcetera, are outlined in terms of model practice as revealed by extensive research by the authors. These issues are discussed with consideration of influencing and determining factors. This book will serve those seeking understanding of their own position and that of others on the staff of a public school system.

R. A. G.

#### FOR HIGH SCHOOL AND COLLEGE STUDENTS

*Adventuring in Home Living.* By Hazel M. Hatcher and Mildred E. Andrews. Illustrated by Alice Freeman. 285 Columbus Avenue, Boston 16, Massachusetts: D. C. Heath and Company, 1954. Pp. 494. \$3.60.

There is excellent material in this book on problems of interest and concern to teenagers. The importance of personal appearance and ways and means for improving appearance; the need for social life and examples of what to do to make and keep friends; food problems, including nutrition and food buying; clothing selection and construction; and proper conduct in the handling of social affairs are included in the book. A unit on the care of children in baby sitting as a preparation for future motherhood is the final unit. The title is a bit misleading, however, because many of the problems discussed extend far beyond adventuring in home living—into the realms of business and social life. An excellent reference book for the home management courses in high schools.

T. O' S.

*Trigonometry.* By William L. Hart. 285 Columbus Avenue, Boston 16, Massachusetts: D. C. Heath and Company, 1954. Pp. 130. \$3.75.

Although the author has designed this text for use in a class where the teacher prefers to commence the course in trigonometry with the study of the trigonometry of acute angles, it would be an excellent choice for use in those departments where there are also teachers

*The Psychology of Teaching Reading.* By Irving H. Anderson and Walter F. Dearborn. 15 East 26th Street, New York 10, New York: The Ronald Press, 1952. Pp. 344. \$4.75.

This book is designed for the teacher or administrator who already knows something about the teaching of reading but is unable, firsthand, to keep up with the individual research studies which in recent years have contributed to modern methods. It presents lucidly and rather simply the psychological and physiological bases of current reading instruction. Not for the beginner, however, who would want something more detailed and specific by way of teaching procedure.

I. J. S.

*Introduction to Teaching in American Schools.* By Gordon McCloskey et al. 383 Madison Avenue, New York 17, New York: Harcourt, Brace and Company, 1954. Pp. 445. \$5.25.

The authors of this text have taken a noticeably different approach in introducing the prospective teacher to the field of education. This, in part, justifies another addition to the already large family of "introduction" texts in education. The chief virtue of this beginning text lies in its simple style of presentation. Technical terminology has been used sparingly. Readability is enhanced by the authors' informal narrative. Perhaps the most singular, effective technique vitalizing the presentation is the frequent employment of case studies which realistically identify the future teacher with the classroom problem. A feature that will be appreciated is the extensive compilation of resource materials concluding each chapter. Particularly noteworthy are the annotated bibliography of current magazine articles and the excellent descriptive listing of audio-visual materials. Some reviewers may find the text too general and oversimplified. The brief survey of the historic traditions of the public school, to cite an example, appears inadequate. However, criticisms of this nature would seem unwarranted if cognizance is taken of the stated purpose of the authors, that the text is designed as a preview of the teaching profession and a foundation for advanced courses in which the introductory phases will be expanded thoroughly.

J. M. B.

who prefer to commence the course in trigonometry with the study of the trigonometry of the general angle. We shall comment on only the first four chapters, for beginning with Chapter Five, the text is identical with the author's *College Trigonometry* (1951), D. C. Heath and Company, publishers. The definitions have been carefully formulated. The triangle problems are up-to-date, simple, and precisely worded. This text is suitable for use on either the secondary or the college level.

R. B. R.

*Forge for Heroes.* By Edward Buell Hungerford. Illustrated by Bill Meeker. 1255 South Wabash Avenue, Chicago 5, Illinois: Wilcox and Follett Company, 1952. Pp. 256. \$2.50.

That crisis of the Revolution, Valley Forge, is the setting for this fine historical novel for young people. The fictional characters, with Mark Meriel from Connecticut as the young hero, and the portraits of historical personages such as Washington and Lafayette are well drawn. The suffering of the Continental Army, without adequate food, clothing, or shelter, but courageous and stouthearted in the face of adversity, is the central theme of the story. When the young protagonist joins Captain McLane's daring Irregulars he shares not only the hardships but the adventure and glory of stouthearted young men fighting for the cause of human liberty.

G. E. B.



*Food for Better Living.* By Irene E. McDermott, Mabel B. Trilling, and Florence Williams Nicholas. East Washington Square, Philadelphia 5, Pennsylvania: J. B. Lippincott Company, 1954. Pp. 570. \$2.75.

The close relationship between the intelligent handling of food problems in the home and successful family living is the point of emphasis in this text. All phases of the food problems are considered, including nutrition, the preparation and serving of foods, party planning, and intelligent consumer buying. Efficiency in the planning and serving of quick but satisfactory meals receives special consideration. Every effort is made throughout the text to stress correct teaching methods, and to emphasize standards in the judgment of results.

T. O. S.

*Villains Galore . . . The Heyday of the Popular Story Weekly.* By Mary Noel. 60 Fifth Avenue, New York 11, New York: The Macmillan Company, 1954. Pp. 320. \$5.00.

Miss Noll writes authoritatively and rather interestingly of the emergence of the weekly fiction magazine in mid- and late-nineteenth century America. The "thrills" which served as escape reading in those days were in their way as sensational as the "pulp" and other trash we periodically insist is ruining contemporary culture. Illustrated.

I. J. S.

*Casey Stengel.* By Gene Schoor with Henry Gilfond. Illustrated with photographs. 8 West 40th Street, New York 18, New York: Julian Messner, Inc., 1953. Pp. 185. \$2.75.

A good portrait of baseball's greatest manager beginning with Casey's earliest playing days and sudden rise to major league fame with the Brooklyn Dodgers and ending midway through the 1953 season of Stengel's New York Yankees. To those young people who hero-worship baseball players, this story of one of the most colorful of them all will be an exciting addition to their reading record.

G. E. B.

*The Boys' First Book of Radio and Electronics.* By Alfred Morgan. Illustrated by Walt Reed. 597 Fifth Avenue, New York 17, New York: Charles Scribner's Sons, 1954. Pp. 221. \$2.75.

A practical book designed to further the knowledge of high school boys interested in radio, telegraph, and electronics apparatus. A brief history of the first wireless telegraph and the first wireless telephone sets the stage for a study of the radio. An abundance of detailed illustrations on ways and means of building radio receivers, amplifiers, and crystal detectors makes easy their construction at home or school. The nomenclature of parts and materials is ample and clear cut. Recommended as appropriate reading for boys and instructors who like to tinker, experiment, and build.

J. F. E.

*Introduction to Exceptional Children.* Revised Edition. By Harry J. Baker. 60 Fifth Avenue, New York 11, New York: The Macmillan Company, 1953. Pp. 500. \$5.00.

This revised edition of a widely used textbook briefly discusses many types of exceptional children, in many cases too briefly. Only sixteen pages, for example, are devoted to the mentally handicapped, perhaps the greatest number of any of the types of exceptional children being educated, trained, and otherwise treated in schools and other institutions. The format of the first edition is retained, the author tells us, "to reduce the expense of publication." It appears to have had a restricting effect on the revision. This volume, nevertheless, adheres to sound principles and should be of value as an overview to beginning students in the field of exceptional children.

D. T.

*Basic Voice Training for Speech.* By Elise Hahn et al. 330 West 42nd Street, New York 36, New York: McGraw-Hill Book Company, Inc., 1952. Pp. 245. \$4.25.

In this text the content, drawn from voice science, is well integrated with usable drill material for voice improvement. A basic concept stressed throughout is that the student must first hear and analyze his own voice before he can improve it; ample exercises are suggested. The book, designed for a one-semester course, is very readable, presents basic concepts concisely and clearly, and follows factual data immediately with drills.

L. M. J.

*Teen-Age Tales, Books 1 and 2.* Adapted by Ruth Strang and Ralph Roberts. 285 Columbus Avenue, Boston 16, Massachusetts: D. C. Heath and Company, 1954. Pp. 248. \$2.00 each.

Compiled for students whose reading performance lags far behind their social maturity, these two volumes of short narratives range in content through sports, animal, science, mystery, and success stories. Controlled in vocabulary and sentence structure so that they are on a sixth-grade level of difficulty, these tales are high in teenage appeal. They should prove useful with both slow and reluctant readers.

I. M. K.

*Good Wives.* By Louisa M. Alcott. Illustrated by S. Van Abbe. 300 Fourth Avenue, New York 10, New York: E. P. Dutton and Company, Inc., 1953. Pp. 296. \$1.75.

The sequel to *Little Women* opens with the flurry of preparations for Meg's wedding. Amy makes the Grand Tour only to meet and marry in Italy the boy from home—Laurie, the next-door neighbor. The March family is saddened by the death of little Beth; Jo's ambitions, achievements, and romance round out the story. Pleasingly illustrated, this English edition of an American classic is especially attractive in format.

I. M. K.

*Bramble Bush.* By Marguerite Dickson. Illustrated by Ruth King. 55 Fifth Avenue, New York 3, New York: Longmans, Green and Company, Inc., 1954. Pp. 270. \$3.00.

This is a reissue of an old book, but its values are still good. Sixteen-year-old Mary Elizabeth had her heart set on going to college, but economic necessity forced a postponement. In her bitterness and self-pity, she lashed out against the town, her grandmother, and her friends. Only when she became aware of the deeper misfortunes around her—a young girl's blindness, her grandmother's serious illness—did she finally face responsibility. Incidents and dialogue are realistic and will hold the interest of the younger teenagers.

E. K. C.

*The First Book of Conservation.* By F. C. Smith. Illustrated by René Martin. 699 Madison Avenue, New York 21, New York: Franklin Watts, Inc., 1954. Pp. 68. \$1.75.

Conservation of our renewable resources is surveyed and condensed in this small volume. The interrelation of living creatures, their relationships to specific environments, man's disturbance of the balance of nature, game laws, wildlife management, and water pollution are among the topics briefly discussed. The work of the conservationists and professional conservation workers is outlined and suggestions are made for pupil participation in this area. The title of this book is as misleading as the format. The appearance and vocabulary is that of a book for intermediate grades, but the numerous concepts of conservation are presented to the reader so compactly and in such rapid sequence that a broad background of science information and experience is necessary for efficient use of the book.

M. B.



*Success and What It Takes, New Ways to Know Yourself and Your World.* By F. S. Edsall. 425 Fourth Avenue, New York 16, New York: William Morrow and Company, 1954. Pp. 251. \$3.75.

This unevenly written book presents the benefits of vocational counseling rather than means to success. As such it has a purpose to serve, but its effectiveness with the layman is questionable. A mixture of information and exhortation, of superficial and detailed explanation, of formal and familiar style, it seems to lack focus and a strong editorial hand. The author's purpose is admirable, but the image of the reader who will profit from it is indistinct. B. B. P.

*Functional Mathematics.* Books I and II. By William A. Gager et al. 597 Fifth Avenue, New York 17, New York: Charles Scribner's Sons, 1953. Pp. 428 and 442 respectively.

In Book I the authors, most of them well known and experienced, strive, through selection and development of materials, to correlate arithmetic, algebra, plane geometry, solid geometry, and trigonometry so that they will be functional. They have set for the goals of the book eight objectives, many of which can doubtless be obtained by pupils in the hands of a skillful teacher. For grades nine to ten. J. J. U.

*Tomorrow Is for You! Minnesota 1857.* By Vera Kelsey. Illustrated by Clarence Tilenius. 597 Fifth Avenue, New York 17, New York: Charles Scribner's Sons, 1953. Pp. 247. \$3.00.

This story of a daring young girl and a resourceful lad has as its setting the Red River Valley in 1857, when frontier incidents and buffalo stampedes were making lively history for the territory which was to become the State of Minnesota. Unfortunately, much of the action is merely reported by sundry eye-witness characters, not suspensefully unfolded for maximum interest value. I. M. K.

*Freedom River: Florida 1845.* By Marjory Stoneman Douglas. Illustrated by Edward Shenton. 597 Fifth Avenue, New York 17, New York: Charles Scribner's Sons, 1953. Pp. 264. \$3.00.

Three youths—an Indian, a son of a small planter, and a fugitive from a wrecked slave ship—share happy excursions, novel adventure, and finally hazards during those controversial months when Florida territory was about to enter the Union as a single, but slave-owning state. Both characterizations and plot structure are praiseworthy. I. M. K.

*The Wavering Flame: Connecticut 1776.* Written and illustrated by Erick Berry. 597 Fifth Avenue, New York 17, New York: Charles Scribner's Sons, 1953. Pp. 266. \$3.00.

One of a series of novels showing the contribution of each state to the Union, this is a salute to Connecticut, which played a colorful role in 1776. This is the story of the boy Jason and of his neighbors—Loyalists, Patriots, Tories, Rebels, Fence-sitters. Even more, it is the story of the Patriot press and its intrepid printers, newly free and newly responsible for shaping public opinion. I. M. K.

*Miss Pickerell Goes Undersea.* By Ellen MacGregor. Illustrated by Paul Galdone. 330 West 42nd Street, New York 36, New York: McGraw-Hill Book Company, Inc., 1953. Pp. 127. \$2.25.

Between the opening scene at the Square Toe City Picture Show and the ending at the same spot, the indomitable heroine becomes involved in salvage operations and in submarine activities, and even does some deep-

sea skin diving. Many incidental science facts are woven into Miss Pickerell's third humorously incongruous adventure tale. M. G. K.

*Cinda.* By Janet Lambert. 300 Fourth Avenue, New York 10, New York: E. P. Dutton and Company, Inc., 1954. Pp. 190. \$2.75.

Sixteen-year-old Paula Marsh is bitter and unhappy because of her mother's remarriage. She comes for the summer to visit the Hollisters, a closely-integrated family, who live happily together in security and "belongingness." Through the kindly plotting of impulsive Cinda, Paula learns to accept her stepfather and to feel that she is wanted. There is a cloying sweetness about all the incidents and people which seems characteristic of this author; her books are not far removed from the Elsie Dinsmore series. Easy reading for teenagers. E. K. C.

*I Find My Vocation.* Fourth Edition. By Harry Dexter Kitson. 330 West 42nd Street, New York 36, New York: McGraw-Hill Book Company, Inc., 1954. Pp. 275. \$2.80.

Revised to include current information, this standard book on career choice retains its original purposes; it is as good now as when it first appeared. While most of the emphasis is upon study of occupations in general, the questions and exercises offer ample opportunity for local application. Objectivity, simplicity, and concreteness are among its assets. While one might wish for more attention to self-appraisal and personal application, this is still a valuable, rich text. B. B. P.

*Keep Your Voice Healthy.* By Friedrich S. Brodnitz. 49 East 33rd Street, New York 16, New York: Harper and Brothers, 1954. Pp. 225. \$3.50.

Although written by a physician, this book presents in non-technical language a discussion of the structure and function of the organs used in the production of voice and speech and the medical problems that concern the vocal organs. No specific method of approach is advocated; only scientific principles from which sound vocal practice may proceed are stressed. This very readable book is extremely useful for anyone who desires to develop a better speaking or singing voice. L. M. J.

*Miss Library Lady.* By Ann McLelland Pfaender. 8 West 40th Street, New York 18, New York: Julian Messner, Inc., 1954. Pp. 184. \$2.50.

After graduation from library school, Jean Muirhead looks forward to a job in the main library of her city. Instead she is sent to a branch in the oldest and poorest district. But she brings her enthusiasm to serving various races and nationalities, and gradually learns to know the people as interesting human beings, whose lives are enriched by the power of books. Later, she is offered a position in Hawaii; there she finds romance in a dramatic setting. Humorous incidents and realistic library atmosphere and routine make this a satisfactory vocational story for younger girls. E. K. C.

*Girl of Urbino.* By Mary K. Corbett. 381 Fourth Avenue, New York 16, New York: Abelard Press, 1953. Pp. 223. \$2.50.

This historical novel of the time of Cesare Borgia shows some storytelling facility and idyllic poetic quality that make conventional secret rooms, passages, and treasures credible. Its fault lies in the dependence of the action upon external circumstance rather than upon character. The heroine is a woman-of-straw, petulant, irascible, self-centered. The triumph of the Utopian cause of Urbino is achieved, not through Chiara's fortitude, but through Leonardo da Vinci's betrayal of Borgia and through the opportune death of the Pope. M. C. A.



## FOR YOUNGER CHILDREN

*Tree Wagon.* By Evelyn Sibley Lampman. Illustrated by Robert Frankenberg. 575 Madison Avenue, New York 22, New York: Doubleday and Company, 1953. Pp. 253. \$2.75.

It is good for modern youngsters to travel with the Luelling family in the little company of covered wagons over the long trail from Salem, Iowa, to Oregon, guarding a precious wagonload of fruit trees and berry bushes for good growing in the new territory, and a barrel of books for good learning on the way. For imaginative little Seenie and daring young Peter the long ordeal was highlighted by many an exciting adventure and plenty of good fun. M. E. C.

*A Hole Is to Dig.* By Ruth Krauss. Illustrated by Maurice Sendak. 49 East 33rd Street, New York 16, New York: Harper and Brothers, 1952. Unp. \$1.50.

Action is the keynote in this simple book. Words, representing children's everyday experiences, are defined in terms of action, largely as suggested by the children themselves. There is humor in the definitions but the pen and ink illustrations are superbly funny. The artist conveys in this old fashioned technique a spirit of humor that fascinates children as well as adults. It is a small book and the pictures are small, too, but after the children have had it read to them a number of times, one can see them fairly clamoring to have the book in their own hands. D. E. W.

*A Bear Is a Bear.* Written and illustrated by Inez Hogan. 300 Fourth Avenue, New York 10, New York: E. P. Dutton and Company, 1953. Pp. 45. \$2.00.

A huge grizzly bear, who thinks he is the biggest bear, takes an exciting trip around the world to find out about other bears. He meets big and little bears, white and brown bears, but no matter where they live, "a bear's a bear." Simply told and clearly illustrated, this entertaining and informative book should appeal to second grade children. V. K.

*Boldy.* Written and illustrated by Nils Hogner. 381 Fourth Avenue, New York 16, New York: Abelard Press, 1953. Unp. \$2.00.

Five- and six-year-olds will want to hear over and over again the adventures of Boldy, the puppy, who learns to overcome his fear of other animals, thus living up to his name. This simple and charming story is enhanced by large black and brown illustrations that have background, humor, and a sense of characterization. V. K.

*The Wonderful Fashion Doll.* Written and illustrated by Laura Bannon. 2 Park Street, Boston 7, Massachusetts: Houghton, Mifflin Company, 1953. Pp. 86. \$2.25.

In the days before fashion magazines, dolls were sent to different countries to display the latest styles. Gay Event was one of the most exquisite of these dolls. She appeared in Petersborough, New Hampshire, over a hundred years ago and was hidden away for safe-keeping. A little girl of today, the great-great-granddaughter of Gay Event's original owner, made it her project to search for the hidden doll. Although charmingly written and illustrated, this is not the type of doll story that is likely to be appreciated by just every little girl. For grades three and four. L. M. J.

*Pogo's Truck Ride.* By Jo and Ernest Norling. 383 Madison Avenue, New York 17, New York: Henry Holt and Company, 1954. Pp. 46. \$1.75.

John is a car-minded boy who dotes upon anything which moves on wheels, and is curious about its inside workings. His dog, Pogo, shares his enthusiasm, and also his birthday treat, a day on the highway in Walt's

combination truck-and-trailer, highlighted by a dangerous encounter with a dump-truck and power-shovel. The exciting adventure stresses safe driving and the courtesy of the road. Pictures and simple diagrams of trucks and parts of trucks add a technical background to delight small boys. M. E. C.

*Tornado Jones.* By Trella Lamson Dick. Illustrated by Mary Stevens. 1255 South Wabash Avenue, Chicago 5, Illinois: Wilcox and Follett Company, 1953. Pp. 286. \$2.95.

When the summer forges a firm friendship between an alert city boy and an eager farm lad, the weeks ahead hold adventures galore, especially when there is a new dam in process of construction, when rumors persist of a hidden payroll in a nearby cave, and when a flood sweeps the canyon where exploring scientists may be trapped unless stout hearts hurry to the rescue. The story reaches a happy climax when Tornado discovers a remnant of his lost family and finds a measure of security for Gram and himself. M. E. C.

*Arizona Hideout.* By Frances McGuire. Illustrated by Frank J. Murch. 300 Fourth Avenue, New York 10, New York: E. P. Dutton and Company, Inc., 1953. Pp. 128. \$2.50.

Jack Sparks, aged fourteen, and his twelve-year-old brother are sent to Arizona to visit an aunt while their parents take a trip to Europe. There they meet Tom, an eccentric old ranch hand who does much to enlighten the boys on the ways of the West. Almost immediately David uncovers a plot of foreign agents to take over a uranium mine and aids in their capture. Contrived situations; long-winded explanations of the history, customs, and flora of Arizona; and the lack of plot and character development have created a tale of incident only, without sincerity or literary merit. It might be useful as a ladder book to break the comic book habit. M. S.

*The First Book of Israel.* Written and illustrated by Nora Benjamin Kubie. 699 Madison Avenue, New York 21, New York: Franklin Watts, Inc., 1953. Pp. 68. \$1.75.

In clear prose and beautiful pictures the author-trace the epic of the Jewish people from the time of Moses to the present pioneer effort to reclaim the land. Here young Americans will learn much about farm and city life in the new Israel, will visit the temporary refugees for newcomers from many lands, and the Children's Village where homeless boys and girls find care. The little book is a real contribution to better understanding. M. E. C.

*Why We Live Where We Live.* By Eva Knox Evans. Illustrated by Ursula Koering. 34 Beacon Street, Boston 6, Massachusetts: Little, Brown and Company, 1953. Pp. 151. \$3.00.

The background of the United States and its people with socio-physical explanations of the why of our way of life. Adapted for middle grade youngsters this book with its profuse illustrations will plant concepts and answer questions so often slighted in our social studies program. M. M. L.

*Little Island Star.* Written and illustrated by Melvern Barker. 114 Fifth Avenue, New York 11, New York: Oxford University Press, 1954. Unp. \$2.75.

A picture book which tells the story of Tommy Green who lived on a little island and thought of the lighthouse as his Island Star. There are large, simple, colorful pictures on each page which kindergarten and first grade children will enjoy. L. M. J.



*Skeleton Cave.* By Cora Cheney. Illustrated by Paul Galdone. 383 Madison Avenue, New York 17, New York: Henry Holt and Company, 1954. Pp. 108. \$2.00.

Second and third graders will delight in the element of mystery as they follow the adventures of Davy Cobb, a farm boy of North Alabama where the Cherokees once hunted and fought. They will rejoice with the young explorer of Skeleton Cave, when, as a stowaway in a farmer's truck, he succeeds in reaching Old South College and interests two anthropologists in his cherished collection of Indian relics. Throughout the exciting events the story stresses the understanding and devotion which induce good family living. M. E. C.

*Salome Goes to the Fair.* By Paul Witty and Anne Coomer. Illustrated by Robert Henneberger. 300 Fourth Avenue, New York 10, New York: E. P. Dutton and Company, Inc., 1953. Pp. 160. \$2.50.

Jim Clay chose to raise a pig for his 4-H Club project. However, when he purchased Salome, a Hampshire runt, the success of his plan seemed doubtful. But under the guidance of John Prescott, adviser to 4-H Club members, Jim won honors for Salome and a special award for himself. Although the dialogue is stilted, there is informative data about the 4-H Club movement, and excellent material about characteristics of pigs and their raising. For ages ten to fourteen. E. M. H.

*Michael McGillicuddy.* By Loretta Marie Tyman. Illustrated by Gioia Fiammenghi. 381 Fourth Avenue, New York 16, New York: Abelard Press, Inc., 1953. Unp. \$2.00.

This is a humorous story about the red-haired McGillicuddy family with emphasis on Michael, the youngest member. Michael's plans, which included the disposing of some loose teeth to pay for a "house wanted" ad, and everybody's red hair helped to find the McGillicuddy's a pretty house with a large yard—a necessary acquisition before Michael could own a dog. It's a gay story, delightfully written for primary grade children. The illustrations are amusing and actionful but somewhat too old-fashioned to harmonize with the contemporary setting of the story. L. M. J.

*Lone Muskrat.* Written and illustrated by Glen Rounds. 8 West 13th Street, New York 11, New York: Holiday House, 1953. Pp. 124. \$2.25.

A description of one winter in the life of a lonely muskrat is fortified with scientifically accurate information on the feeding habits and struggle for survival against the elements and preying enemies of the little animal. The facts are skillfully woven into an adventure story for the readers of the intermediate grades. The book is also suitable for retarded readers interested in wild life. The print is large and clear; the chapters are short and exciting; well illustrated. V. H. L.

*The Courage of Sarah Noble.* By Alice Dalgliesh. Illustrated by Leonard Weisgard. 597 Fifth Avenue, New York 17, New York: Charles Scribner's Sons, 1954. Pp. 54. \$2.00.

Told with exquisite simplicity in poetic prose and beautiful pictures, the story of Sarah Noble is the true experience of an eight-year-old child who traveled with her father in 1707 into the wilderness of Connecticut to comfort and care for him while he built a home for his family and formed firm friendship with the neighboring Indians. It is good for children of today to know the hardships of pioneer life and the faith and courage which met dangers and overcame difficulties. With Sarah they will learn that "to be afraid and still be brave is the best courage of all." M. E. C.

*Ships and Life Afloat.* Written and illustrated by Walter Buehr. 597 Fifth Avenue, New York 17, New York: Charles Scribner's Sons, 1953. Pp. 116. \$3.00.

With this book we have at once rather complete data on the lore of the sea, written for a fourth or fifth grader. Written as a history of boats, this work could be correlated with most history lessons from fifth grade up. Ample illustrations show the marked differences between various boats. Information on Celestial Navigation and its history as well as devices used in the past lend originality to this selection. M. M. L.

*Lucky Blacky.* By Eunice Lackey. Illustrated by Winifred Greene. 699 Madison Avenue, New York 21, New York: Franklin Watts, Inc., 1953. Pp. 118. \$2.50.

Here is good fun for the youngest readers told in rollicking, rhythmic prose and gay, amusing pictures. It is the story of the little black cat who found a home with Miss Lucy and straightway became the means of transforming her drab little house and her lonely life into a cheerful dwelling and happy living. Contrary to tradition, Blacky became the symbol of good luck for the whole neighborhood. M. E. C.

*King Arthur and the Round Table.* By A. M. Hadfield. Illustrated by Donald Seton Cammell. 300 Fourth Avenue, New York 10, New York: E. P. Dutton and Company, Inc., 1953. Pp. 232. \$2.25.

Richly illustrated with fine color-plates and black-and-white drawings, this attractive modern edition of the King Arthur story should please young readers. The style is stately, readable, appropriate. Drawn chiefly from Malory's *Morte d'Arthur*, this version once again sends forth the knights of the sixth-century Round Table clad not in their leather garments but in iron armor. It is a version stressing jousts and the Quest of the Grail. Romance is of small importance. Occasionally lines from *Idylls of the King* replace the prevailing prose of the narrative. I. M. K.

*Little Dermot and the Thirsty Stones.* Written and illustrated by Richard Bennett. 210 Madison Avenue, New York 16, New York: Coward-McCann, Inc., 1953. Pp. 91. \$2.50.

This is a fine little book of eight Irish folktales retold by one who heard them as a child in his native land. The stories are charmingly written in simple, direct language and are appropriately illustrated with humorous black and white drawings. Excellent for reading aloud or telling to children from grades four to six. L. M. J.

*Courage Wins.* By Grace Tracy Johnson and Harold N. Johnson. Illustrated by Peter Burchard. 300 Fourth Avenue, New York 10, New York: E. P. Dutton and Company, Inc., 1954. Pp. 222. \$2.75.

A well-conceived story of the opening up of the Western Reserve wilderness that was to become the northeast section of Ohio. The plot centers on the activities of a Connecticut family to establish themselves in the new territory with many hardships to prevail against, particularly the severe weather, the Indians, and the activities of the War of 1812. Unfortunately, the execution of the story does not stand up favorably to the reasonable theme and plot. The style of the authors is labored and artificial, at once an attempt to be both realistic and overly poetic. Terrible adversities are constantly being conjured up always to be overcome shortly afterward with the greatest of ease. The style is consistently dulled by the over-use of questions—questions of dire forebodings and happenings; can they be overcome? And, of course, they always are! G. E. B.



## EDUCATIONAL CONFERENCES AND CONVENTIONS

March 6-10: Tenth Annual Convention, Association for Supervision and Curriculum Development, NEA, Chicago, Illinois.

March 12-16: Regional Convention, American Association of School Administrators, NEA, Denver, Colorado.

March 16-19: Annual Meeting, NEA, Department of Elementary School Principals, Chicago, Illinois.

March 24-26: Third National Convention, National Science Teachers Association, NEA, Cincinnati, Ohio.

April 1-4: National Convention, National Association of Deans of Women, NEA, Chicago, Illinois.

April 2-6: Regional Convention, American Association of School Administrators, NEA, Cleveland, Ohio.

April 3-7: National Convention, American Personnel and Guidance Association, Chicago, Illinois.

April 10-16: International Conference, International Council for Exceptional Children, NEA, Long Beach, California.

April 11-15: Association for Childhood Education International, Kansas City, Missouri.

April 11-16: Third National Conference, National Art Education Association, NEA, Cleveland, Ohio.

April 18-22: National Convention, Department of Audio-Visual Instruction, NEA, Los Angeles, California.

April 26-30: National Convention, American Industrial Arts Association, NEA, Atlantic City, New Jersey.



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